

Focus on **LAND WARFARE**

- ▶ Reconstructing Iraq's Provinces
 - ▶ Irregular Warfare Is Warfare
- ▶ EBO: Point >< Counterpoint

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CORRECTION

In *JFQ* 51 (4th Quarter, 2008), two photographs were incorrectly credited. On page 57, proper credit goes to Julius Delos Reyes. On page 59, proper credit goes to M. Erik Reynolds.



ABOUT THE COVERS

Front cover shows Secretary of Defense Robert Gates reviewing a speech enroute to Williamsburg, Virginia, aboard UH-60 (DOD/Cherie A. Thurlby). Table of contents (left to right): U.S. Army Chief of Staff greets recruit during 35th anniversary celebration of all-volunteer force (U.S. Army/D. Myles Cullen); Soldiers patrol in Ninawa Province, Iraq (3^d Armored Combat Regiment/Donald Spar); Iraqi detainees attend civics class at Camp Bucca (U.S. Army/Amie J. McMillen); and Marine and South Korean officers review range operations during bombing exercise in Djibouti (U.S. Navy/Michael R. McCormick). Back cover features (top to bottom): then-U.S. Presidential candidate Barack Obama views Sadr City district of Baghdad with General David Petraeus from UH-60 (U.S. Army/Lorie Jewell); USS *Chancellorsville* and USS *Decatur* moored in Hong Kong Harbor (U.S. Navy/Spike Call); Afghan officer uses sand table to prepare soldiers for mission in Nangahar Province, Afghanistan (55th Combat Camera Company/Johnny R. Aragon); and tanker trucks bring fuel for USS *Kearsarge* pier side in Santa Marta, Colombia, during Operation *Continuing Promise* (U.S. Navy/Erik C. Barker).

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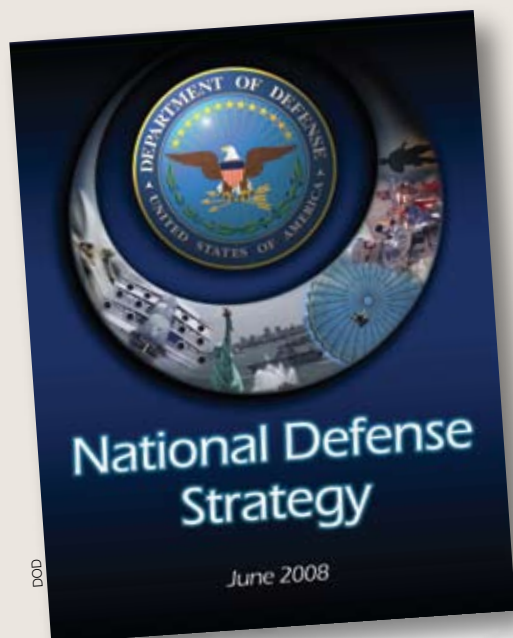
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The National Defense Strategy Striking the Right Balance

By ROBERT M. GATES



The defining principle driving our strategy is balance. Balance is not the same as treating all challenges as having equal priority. We cannot expect to eliminate risk through higher defense budgets—in effect, “to do everything, buy everything.” Resources are scarce, yet we still must set priorities and consider inescapable tradeoffs and opportunity costs.

We currently strive for balance between:

- doing everything we can to prevail in the conflicts we are in, and being prepared for other contingencies that might arise elsewhere, or in the future
- institutionalizing capabilities such as counterinsurgency and stability operations,

as well as helping partners build capacity, and maintaining our traditional edge—above all, the technological edge—against the military forces of other nation-states

■ retaining those cultural traits that have made the U.S. Armed Forces successful by inspiring and motivating the people within them, and shedding those cultural elements that are barriers to doing what needs to be done.

As we have seen in recent years, in so many ways, the basic nature of humanity and the iron realities of nations have not changed, despite the fondest hopes of so many for so long, especially after the end of the Cold War. What has changed is that the international environment today is



Top: New *National Defense Strategy*, published June 2008
Bottom: USS *Ronald Reagan* pulls into Agana Harbor, Guam

U.S. Navy (Jennifer S. Kimball)

more complex and unpredictable than it has perhaps ever been.

The Wars We Are In

As we think about the security challenges on the horizon, we must establish up front that America's ability to deal with threats for years to come will depend importantly on our performance in today's conflicts. To be blunt, to fail—or to be *seen* to fail—in either Iraq or Afghanistan would be a disastrous blow to our credibility, both among our friends and allies and among our potential adversaries.

In Iraq, the number of U.S. combat units in-country will decline over time. The debate now is about the pacing of the drawdown as there will continue to be some kind of American advisory and counterterrorism effort in Iraq for years to come.

In Afghanistan, as President Bush announced in September 2008, U.S. troop levels are rising, with the likelihood of more increases in 2009. Given its terrain, poverty, neighborhood, and tragic history, the country in many ways poses an even more complex and difficult long-term challenge than Iraq—one that, despite a large international effort, will require a significant American military and economic commitment for some time.

In the past, I have expressed frustration over the defense bureaucracy's priorities and lack of urgency when it comes to current conflicts—that for too many in the Pentagon it has been business as usual, as opposed to a wartime footing and a wartime mentality. When referring to “Next-War-itis,” I was not expressing opposition to thinking about and preparing for the future. It would be irresponsible not to do so—and the overwhelming majority of people in the Pentagon, Services, and defense industry do just that. My point is simply that we must not be so preoccupied with preparing for future conventional and strategic conflicts that we neglect to provide, both short and long term, all the capabilities necessary to fight and win conflicts such as those we face today.

Support for conventional modernization programs is deeply embedded in our budget, our bureaucracy, the defense industry, and Congress. My fundamental concern is that there is not commensurate institutional support—including in the Pentagon—for the capabilities needed to win the wars we are in,

and of the kinds of missions we are most likely to undertake in the future.

What is dubbed the “war on terror” is, in grim reality, a prolonged, worldwide irregular campaign—a struggle between the forces of violent extremism and of moderation. In the long-term effort against terrorist networks and other extremists, we know that direct military force will continue to have a role. But we also understand that over the long term, we cannot kill or capture our way to victory. Where possible, kinetic operations should be subordinate to measures that promote better governance, economic programs to spur development, and efforts to address the grievances among the discontented from which the terrorists recruit. It will take the patient accumulation of quiet successes over a long time to discredit and defeat extremist movements and their ideologies. As the National Defense Strategy puts it, success will require us to “tap the full strength of America and its people”—civilian and military, public sector and private.

We are unlikely to repeat another Iraq or Afghanistan any time soon—that is, forced regime change followed by nationbuilding under fire. But that does not mean that we may not face similar challenges in a variety of locales. Where possible, our strategy is to employ indirect approaches—primarily through building the capacity of partner governments and their security forces—to prevent festering problems from turning into crises that require costly and controversial American military intervention. In this kind of effort, the capabilities of our allies and partners may be as important as our own, and building their capacity is arguably as important if not more so than the fighting we do ourselves.

That these kinds of missions are more frequent does not necessarily mean, for risk assessment purposes, that they automatically should have a higher priority for the purposes of military readiness. And it is true that many past interventions have had significant humanitarian considerations. However, the recent past vividly demonstrated the consequences of failing to address adequately the dangers posed by insurgencies and failing states. Terrorist networks can find a sanctuary within the borders of a weak nation and strength within the chaos of social breakdown. A nuclear-armed state could collapse into chaos and criminality. Let's be honest with

ourselves. The most likely catastrophic threats to our homeland—for example, an American city poisoned or reduced to rubble by a terrorist attack—are more likely to emanate from failing states than from aggressor states.

The kind of capabilities needed to deal with these scenarios cannot be considered exotic distractions or temporary diversions. We do not have the luxury of opting out because they do not conform to preferred notions of the American way of war.

Furthermore, even the largest wars will require so-called small wars capabilities. Ever since General Winfield Scott led the Army into Mexico in the 1840s, nearly every major deployment of American forces has led to subsequently longer military presence to maintain stability. General Dwight Eisenhower, when tasked with administering North Africa in 1942, wrote, “The sooner I can get rid of these questions that are outside the military in scope, the happier I will be! Sometimes, I think I live 10 years each week, of which at least nine are absorbed in political and economic matters.” And yet, in Eisenhower, General George Marshall knew he had the “almost perfect model of a modern commander: part soldier, part diplomat, part administrator.” This model is as important and real today as it was 70 years ago.

*over the long term, we cannot
kill or capture our way to
victory*

Whether in the midst or aftermath of any major conflict, the requirement for the U.S. military to maintain security, provide aid and comfort, begin reconstruction, and stand up local government and public services will not go away. Even with a better funded State Department and U.S. Agency for International Development, future military commanders will no more be able to rid themselves of these tasks than Eisenhower was. To paraphrase what a former United Nations Secretary-General said about peacekeeping, it is not a soldier's job, but sometimes only a soldier can do it. To truly achieve victory as Clausewitz defined it—attaining a political objective—the U.S. military's ability to kick down the door must be matched by its ability to clean up the mess and even rebuild the house afterward.

Signs of Progress

Given these realities, the military has made some impressive strides in recent years:

- Special operations have received steep increases in funding and personnel.
- The Air Force has created a new air advisory program, and recently, General Norton Schwartz announced a new career track for unmanned aerial operations.
- The Navy stood up a new expeditionary combat command and brought back its riverine units.
- New counterinsurgency and Army operations manuals, plus a new maritime strategy, have incorporated the lessons of recent years into Service doctrine. To the traditional principles of war have been added perseverance, restraint, and legitimacy.
- Train and equip authorities and programs allow us to move more quickly to build the security capacity of partner nations.
- A variety of initiatives are under way that better integrate and coordinate U.S. military efforts with civilian agencies as well as engage the expertise of the private sector, including nongovernmental organizations and academia.

Retired Marine colonel T.X. Hammes has noted that whereas past insurgencies consisted of military campaigns supported by information operations, they now often consist of strategic communications campaigns supported by military operations. In Iraq and Afghanistan, extremists have made deft use of the Internet and propaganda to misinform and intimidate local populations—the swing voters, if you will, in these struggles. Many defense leaders—including myself—have bemoaned the U.S. Government's

for shortcomings in policy or execution. As Admiral Mullen has noted, in the broader battle for hearts and minds abroad, we have to be as good at listening to others as we are at telling them our story. And when it comes to perceptions at home, when all is said and done, the best way to convince the American people that we are winning a war is through credible and demonstrable results, as we have done in Iraq.

Don't Forget the Nation-state

Even as we hone and institutionalize new and unconventional skills, the United States still has to contend with the security challenges posed by the military forces of other countries—from those actively hostile to those at strategic crossroads.

The images of Russian tanks rolling into the Republic of Georgia last August were a reminder that nation-states and their militaries do still matter. Both Russia and China have increased their defense spending and modernization programs, to include air defense and fighter capabilities that in some cases approach our own.

In addition, there is the potentially toxic mix of rogue nations, terrorist groups, and nuclear, biological, or chemical weapons. North Korea has built several bombs, and Iran seeks to join the nuclear club. North Korea is impoverished and literally starving, while Iran sits on a sea of oil. Both have primitive ground offensive capabilities and ballistic missile programs of increasing range. Both have a record of proliferation and ties to criminal groups or terrorist networks.

What all these potential adversaries have in common—from terrorist cells to rogue nations to rising powers—is that they

in the Army, and amphibious operations in the Marine Corps. We must remedy this situation as soon as we can through growing the ground forces, and increasing dwell time and opportunities for full-spectrum training.

But in making the risk assessment associated with near-peer competitors, in judging where we can make tradeoffs, it is important to keep some perspective. It is generally agreed, for example, that the Navy has shrunk too much since the end of the Cold War—a view I share. But it is also true that in terms of tonnage, the battle fleet of the Navy, by one estimate, is larger than the next 13 navies combined—and 11 of those 13 navies are allies or partners. No other navy has anything comparable to the reach or combat power of a single American carrier strike group.

Russian tanks and artillery may have crushed Georgia's tiny military. But before we begin rearming for another Cold War, remember that what is driving Russia is a desire to exorcise past humiliation and dominate their near abroad—not an ideologically driven campaign to dominate the globe. As someone who used to prepare estimates of Soviet military strength for several Presidents, I can say that the Russian conventional military, though vastly improved since its nadir in the late 1990s, remains a shadow of its Soviet predecessor. And Russian demographics will likely impede its numbers getting much larger. Though Russia's recent air and naval forays into this hemisphere have grabbed headlines, it is worth noting that in the last 15 years the Russian navy has launched just two new major warships. Russia does present serious challenges, but ones very different from the past.

All told, this year's [2008] National Defense Strategy concluded that although U.S. predominance in conventional warfare is not unchallenged, it is sustainable for the medium term, given current trends. It is true that the United States would be hard pressed to fight a major conventional ground war elsewhere on short notice, but where on Earth would we do that? We have ample, untapped striking power in our air and sea forces should the need arise to deter or punish aggression—whether on the Korean Peninsula, in the Persian Gulf, or across the Taiwan Strait. So while we are knowingly assuming some additional risk in this area, that risk is, I believe, a prudent and manageable one.

Other nations may be unwilling to challenge the United States fighter to fighter, ship to ship, or tank to tank. But they are develop-

a variety of initiatives are under way that better integrate and coordinate military efforts with civilian agencies as well as engage the private sector

limitations in this area. Our troops have made some ingenious adaptations, such as in Iraq, for example, where they set up the "Voice of Ramadi" broadcast to counter what was spewing forth from extremist mosques.

The Quadrennial Defense Review highlighted the importance of strategic communications as a vital capability, and good work has been done since. However, we cannot lapse into using communications as a crutch

have learned over time that it is not wise to confront the United States directly or on conventional military terms.

Nonetheless, we cannot take this traditional dominance for granted. Many of America's refueling tankers and some fighters are now older than the pilots who fly them. As a result of the demands of Afghanistan and Iraq, ground forces have not been able to stay proficient in specialties such as field artillery

ing the disruptive means to blunt the impact of American power, narrow our military options, and deny us freedom of movement and action.

In the case of China, investments in cyber and antisatellite warfare, anti-air and anti-ship weaponry, submarines, and ballistic missiles could threaten America's primary means to project power and help allies in the Pacific: our bases, air and sea assets, and the networks that support them. This will put a premium on America's ability to strike from over the horizon and employ missile defenses; and it will require shifts from short-range to longer range systems such as the next generation bomber.

And even though the days of hair-trigger superpower confrontation are over, as long as other nations possess the bomb and the means to deliver it, the United States must maintain a credible strategic deterrent. Toward this end, the Department of Defense and Air Force have taken firm steps to return excellence and accountability to our nuclear stewardship. We also need Congress to fund the Reliable Replacement Warhead Program—for safety, for security, and for a more reliable deterrent.

Blurring Boxes and Hybrid War

As we think about this range of threats, it is common to define and divide the so-called high end from the low end, the conventional from the irregular—armed divisions on one side and guerrillas toting AK-47s on the other. In reality, as Colin Gray has noted, the categories of warfare are blurring and do not fit into tidy boxes. We can expect to see more tools and tactics of destruction—from the sophisticated to the simple—being employed simultaneously in hybrid and more complex forms of warfare.

Russia's relatively crude—though brutally effective—conventional offensive in Georgia was augmented with a sophisticated cyber attack and well-coordinated propaganda campaign. We saw a different version during the invasion of Iraq, where Saddam Hussein dispatched his swarming paramilitary Fedayeen along with the T-72s of the Republican Guard.

Conversely, militias, insurgent groups, other nonstate actors, and Third World militaries are increasingly acquiring more technology, lethality, and sophistication—as illustrated by the losses and propaganda victory that Hizballah was able to inflict on Israel 2 years ago. Hizballah's restocked arsenal of

rockets and missiles now dwarfs the inventory of many nation-states. Furthermore, Russian and Chinese arms sales are putting advanced capabilities—both offensive and defensive—in the hands of more countries and groups.

As defense scholars have noted, these hybrid scenarios combine the “lethality of state conflict with the fanatical and protracted fervor of irregular warfare.”¹ Here, “Microsoft coexists with machetes, and stealth is met by suicide bombers.”²

As we can expect a blended, high-low mix of adversaries and types of conflict, so too should America seek a better balance in the portfolio of capabilities we have—the types

of units we field, the weapons we buy, and the training we do.

Sensible and Responsive Procurement

When it comes to procurement, for the better part of 5 decades, the trend has gone toward lower numbers as technology gains made each system more capable. In recent years, these platforms have grown ever more baroque and costly, are taking longer to build, and are being fielded in ever dwindling quantities.

Given that resources are not unlimited, the dynamic of exchanging numbers for capability is perhaps reaching a point

other nations are developing the disruptive means to blunt the impact of American power, narrow our military options, and deny us freedom of movement and action

U.S. Marine convoy of up-armored Humvees in Helmand Province, Afghanistan



U.S. Marine Corps (Randall A. Clinton)

of diminishing returns. A given ship or aircraft—no matter how capable or well-equipped—can only be in one place at one time—and, to state the obvious, when one is sunk or shot down, there is one fewer of them.

In addition, the prevailing view for decades was that weapons and units designed for the so-called high end could also be used for the low. And it has worked to some extent: strategic bombers designed to obliterate cities have been used as close air support for riflemen on horseback. M-1 tanks designed to plug the Fulda Gap routed insurgents in Fallujah and Najaf. Billion-dollar ships are employed to track pirates and deliver humanitarian aid. And the Army is spinning out parts of the Future Combat Systems—as they move from drawing board to reality—so they can be available and usable for our troops in Afghanistan and Iraq.

The need for the state-of-the-art systems—particularly longer range capabilities—will never go away, as we strive to offset the countermeasures being developed by other nations. But at a certain point, given the types of situations that we are likely to face—and given, for example, the struggles to field up-armored Humvees, Mine Resistant Ambush Protected (MRAP) vehicles, and intelligence, surveillance, and reconnaissance (ISR) in Iraq—it begs the question of whether specialized, often relatively low-tech equipment for stability and counterinsurgency missions is also needed.

And how do we institutionalize procurement of such capabilities—and the ability to get them fielded quickly? Why did we have to go outside the normal bureaucratic process to develop counter-improvised explosive device technologies, to build MRAPs, and to quickly expand our ISR capability? In short, why did we have to bypass existing institutions and procedures to get the capabilities we need to protect our troops and pursue the wars we are in?

Our conventional modernization programs seek a 99-percent solution in years. Stability and counterinsurgency missions—the wars we are in—require 75-percent solutions in months. The challenge is whether in our bureaucracy and in our minds these two different paradigms can be made to coexist.

At the Air War College earlier this year, I asked whether it made sense in situations where we have total air dominance to employ lower cost, lower tech aircraft that can be employed in large quantities and used by our

partners. This is already happening in the field with Task Force ODIN in Iraq, where advanced sensors were mated with turboprop aircraft to produce a massive increase in the amount of surveillance and reconnaissance coverage. The issue then becomes how we build this kind of innovative thinking and

future colonels, captains, and sergeants will not have to be quite so heroic or resourceful.

One of the enduring issues our military struggles with is whether personnel and promotions systems designed to reward command of American troops will be able to reflect the importance of advising, training,

given the situations we are likely to face, it begs the question of whether specialized, often relatively low-tech equipment for stability and counterinsurgency missions is also needed

flexibility into our rigid procurement processes here at home. The key is to make sure that the strategy and risk assessment drive the procurement, rather than the other way around.

A Full-spectrum Force

I believe we must do this. The two models can—and do—coexist. Being able to fight and adapt to a diverse range of conflicts—sometimes all at once—lands squarely in the long history and finest traditions of the American practice of arms. In the Revolutionary War, tight formations drilled by Baron von Steuben fought Redcoats in the north, while guerrillas led by Francis Marion harassed them in the south. During the 1920s and 1930s, the Marine Corps conducted what we would now call stability operations in the Caribbean, wrote the *Small Wars Manual*, and at the same time developed the amphibious landing techniques that would help liberate Europe and the Pacific in the following decade.

And then consider General “Black Jack” Pershing, behind whose desk I sit. Before commanding the American Expeditionary Force in Europe, Pershing led a platoon of Sioux Indian scouts, rode with Buffalo Soldiers up San Juan Hill, won the respect of the Moros in the Philippines, and chased Pancho Villa in Mexico.

In Iraq, we have seen how an army that was basically a smaller version of the Cold War force can become an effective instrument of counterinsurgency over time. But that came at a frightful human, financial, and political cost. For every heroic and resourceful innovation by troops and commanders on the battlefield, there was some institutional shortcoming at the Pentagon they had to overcome. The task facing military officers today is to support the institutional changes necessary so

and equipping foreign troops—which is still not considered a career-enhancing path for our best and brightest officers. Or whether formations and units organized, trained, and equipped to destroy enemies can be adapted well enough, and fast enough, to dissuade or coopt them—or, more significantly, to build the capacity of local security forces to do the dissuading and destroying.

Institutional Culture and Incentives

I have spent much of the last year making the argument in favor of institutionalizing counterinsurgency skills and our ability to conduct stability and support operations. This begs a fair question: If balance between high- and low-end capabilities is so important, and we cannot lose our conventional edge, why spend so much time talking about irregular or asymmetric warfare? The reality is that conventional and strategic force modernization programs are strongly supported in the Services, in Congress, and by the defense industry. For reasons laid out today, I also support them. For example, this year’s base budget for fiscal year 2009 contains more than \$180 billion in procurement, research, and development, the overwhelming preponderance of which is for conventional systems.

However, apart from the Special Forces community and some dissident colonels, for decades there has been no strong, deeply rooted constituency inside the Pentagon or elsewhere for institutionalizing our capabilities to wage asymmetric or irregular conflict—and to quickly meet the ever-changing needs of our forces engaged in these conflicts.

Think of where our forces have been sent and have been engaged over the last 40-plus years: Vietnam, Lebanon, Grenada, Panama, Somalia, Haiti, Bosnia, Kosovo, Afghanistan, Iraq, the Horn of Africa, and more. In fact, the first Gulf War stands alone

in over two generations of constant military engagement as a more or less traditional conventional conflict from beginning to end. As then-Marine Commandant Charles Krulak predicted just over 10 years ago, instead of the beloved “son of *Desert Storm*,” Western militaries are confronted with the unwanted “stepchild of Chechnya.”

There is no doubt in my mind that conventional modernization programs will continue to have—and deserve—strong institutional and congressional support. I just want to make sure the capabilities we need for the complex conflicts we are actually in and are most likely to face in the foreseeable future also have strong institutional support and are sustained in the long term. And I want to see an institution that can make and implement decisions quickly in support of those on the battlefield.

In the end, the military capabilities we need cannot be separated from the cultural traits and reward structure of the institutions we have: the signals sent by what gets funded, who gets promoted, what is taught in the academies and staff colleges, and how we train.

Thirty-six years ago, my old Central Intelligence Agency colleague Bob Komer, who led the pacification campaign in Vietnam, published his classic study of organizational behavior entitled *Bureaucracy Does Its Thing*. Looking at the performance of the U.S. national security apparatus during that conflict—military and civilian—he identified a number of tendencies that prevented institutions from adapting long after problems had been identified and solutions were proposed:

- the reluctance to change preferred ways of functioning, and when faced with lack of results, to do more of the same
- trying to run a war with a peacetime management structure and practices
- belief that the current set of problems was either an aberration or would soon be over
- where because a certain problem—in that case counterinsurgency—did not fit the inherited structure and preferences of organizations, it simultaneously became everybody’s business and no one’s business.

I cite that study not to relitigate that war, or to suggest that the institutional military has not made enormous strides in recent years. It is instead a cautionary reminder that these tendencies are always present in any large,

hierarchical organization, and we must consistently strive to overcome them.

Humility and Limits

From these personal lessons that I have learned from 42 years of service in this arena, I hope that national security professionals take away two things: a sense of humility and an appreciation of limits.

First, limits about what the United States—still the strongest and greatest nation on Earth—can do. The power of our military’s global reach has been an indispensable contributor to world peace and must remain so. But not every outrage, every act of aggression, or every crisis can or should elicit an American military response, and we should acknowledge such.

Be modest about what military force can accomplish, and what technology can accomplish. The advances in precision, sensor, information, and satellite technology have led to extraordinary gains in what the U.S. military can do:

- the Taliban is dispatched within 3 months
- Saddam’s regime is toppled in 3 weeks
- a button is pushed in Nevada, and seconds later a pickup truck explodes in Mosul
- a bomb destroys the targeted house on the right, but leaves intact the one on the left.

But also never neglect the psychological, cultural, political, and human dimen-

sions of warfare, which is inevitably tragic, inefficient, and uncertain. Be skeptical of systems analysis, computer models, game theories, or doctrines that suggest otherwise. Look askance at idealized, triumphalist, or ethnocentric notions of future conflict that aspire to upend the immutable principles of war, scenarios where the enemy is killed but our troops and innocent civilians are spared, where adversaries can be cowed, shocked, or awed into submission instead of being tracked down, hilltop by hilltop, house by house, and block by bloody block. As General William Sherman said, “Every attempt to make war easy and safe will result in humiliation and disaster.” Or, as General Joseph “Vinegar Joe” Stilwell said, “No matter how a war starts, it ends in mud. It has to be slugged out—there are no trick solutions or cheap shortcuts.”

In conclusion, for the reasons outlined in this presentation, I believe our National Defense Strategy provides a balanced and realistic approach to protecting America’s freedom, prosperity, and security in the years ahead. **JFQ**

NOTES

¹ Frank G. Hoffman, *Conflict in the 21st Century: The Rise of Hybrid Wars* (Arlington, VA: Potomac Institute for Policy Studies, December 2007), 28.

² Michael Evans, “From Kadesh to Kandahar: Military Theory and the Future of War,” *Naval War College Review* 56, no. 3 (Summer 2003), 132–150.

Soldiers fire mortar at Taliban insurgents near Firebase Martello, Afghanistan



U.S. Army (Michael Zuk)

From the Chairman

What I Have Learned about the Army

Our Army is the center of gravity for the U.S. military—and this center includes the Guard and Reserves. It is the best and most combat-hardened Army that the Nation has ever known—indeed, the world has ever known. And we must do all we can to make sure it stays that way.

Let me take you through some of the things I have learned about our Army, which we all serve. Some of these things might surprise you, most probably will not, but I thought you might be interested in how this Sailor has come to see it.

The first thing I learned about the Army is *hooah*.

There are 1,000 or 10,000 or 100,000 different ways to say *hooah*. But I learned that it is more than just a battle cry; it is a *way of life*. It says that you will never quit, never surrender, never leave your buddy. It says that you are proud of the hardships you have endured because there is deep meaning in every one of them.

Go stand atop one of those hills in the Korengal Valley in Afghanistan, where I was last February and July, with paratroopers assigned to the 173^d Airborne Brigade Combat Team. Look around at the utter desolation of the place and the spartan conditions that these young people are living in. You cannot help but come back a little thick in the throat.

I awarded a Silver Star to a young officer there, Captain Greg Ambrosia, who placed himself in the line of fire to direct his men to safety. I pinned on some Bronze Stars, Commendation Medals, and Purple Hearts as well. These troops had been out there 14 months and seen a lot of tough fighting. They lost a lot of good Soldiers. We often forget the impact of war on those who were alongside our fallen. That loss impacts them for the rest of their lives.

When those Soldiers yelled “Hooah!” after the ceremony, I understood that it was not because they were proud of their new medals; it was because they were proud of the difference they knew they were making together, *as a team—as an Army*.

The second thing I have learned is that our Army has become a world-class counterinsurgency force in an extraordinarily short time. In Iraq, I walked down the streets of Sadr City, and visited an outpost in Mosul. These were places where, just a few weeks before, we could not have visited at all. Al Qaeda is clearly on the run in Iraq, and the surge and Anbar Awakening and even Muqtada al Sadr’s ceasefire all helped to make that happen. But what really turned it around was the counterinsurgency tactics that our troops embraced and perfected.

Think about it: As late as the winter of 2007, when President Bush announced the surge, attacks were averaging nearly 180 a day, the highest level since major combat operations ended. A new national intelligence estimate predicted that Iraqi leaders would be hard pressed to reconcile over the next year and a half. But look where we are now. Our commitment to counterinsurgency warfare worked. That meant sharing risk with the Iraqis, which in turn meant a whole lot of courage on the part of our Soldiers. Yet they prevailed because they learned, adapted, and most of all believed.

Third, I learned that it is irresponsible to neglect the continual improvement of our conventional capabilities. I was struck during one of my first visits as Chairman to an Army base—Fort Sill—by how few young artillery officers had earned their basic qualifications because they had so often deployed outside their skill set. Now, as the Chief of Naval Operations who deployed upwards of 12,000 Sailors to work on the ground in the U.S. Central Command theater, I understand the benefit for people to develop themselves.

We need more balance in the way we think, train, and resource ourselves. Very real threats still exist from regional powers who possess robust conventional and, in some cases, nuclear capabilities. We must restore some of the more conventional and expeditionary expertise that we will require in the uncertain years ahead.

DOD (Chad J. McNeeley)



ADM Mullen awards Silver Star to CPT Gregory Ambrosia, Korengal Outpost, Afghanistan, July 2008

It is difficult to modernize while fighting a war. But there is also an argument that a combat footing generates the energy and sense of urgency that allow us to meet the pace of change. The essential truth is that we are at war—and it is a war that is moving at lightning speed.

And that brings me to my fourth observation: our peacetime processes are not adapted to a wartime reality. We simply have not kept pace with the demands that this war requires of our wounded, fallen, and their families. Some wounded Servicemembers are waiting too long to receive disability ratings and transition out of the military, leaving them and their families in limbo. Indeed, Servicemembers tell me that their most precious resource is time. They want their lives back. They want to move on.

I know that we have launched a pilot program with the Department of Veterans Affairs designed to streamline the transition process, but we are still not moving quickly enough. And I hope that we are able to expand it as rapidly as possible.

Recent studies suggest that as many as 20 percent of today's troops may suffer from post-traumatic stress (PTS) brought on by combat in Iraq and Afghanistan.

Many are understandably wary of the stigma attached to mental health issues—a problem we *can* alleviate by making everyone undergo screening, so no one has to raise his or her hand. I recently had the chance to visit the VA hospital in Palo Alto, California, and talked with about 30 mostly Active duty PTS patients from every Service. It bothered me to see what they had to go through just to get help—essentially bottoming out, like they were in an alcohol or a drug rehabilitation program.

The families of the fallen and the wounded never lost the American dream. They still want to work; they want to send their kids to school; they want to get an education; they want to own a piece of the rock. Indeed, they have earned it. And it is up to us to ensure that they get the chance.

Finally, I have learned that the Army, above all, is a learning organization. From rapid development and adaptation of doctrine, to command organization, to movement of brigade combat teams and modular headquarters, to the way people are promoted, the Army is constantly changing and adapting to meet the challenges of the day. We are seeing people succeed, grow, and lead. We are seeing people unafraid to challenge

assumptions or old ways. Our midgrade non-commissioned officers and young captains love what they do. They have led in combat. They are remarkably resilient, and they do us all proud. Junior officers and enlisted men and women need to know that it is right to question the direction of their Service and seniors. In fact, they should be rewarded for it. That sort of feedback is healthy, and it foment the kind of change we need.

As General George Marshall once quipped, "Soldiers are intelligent. Give them the bare tree; let them supply the leaves." I have certainly seen the forest for the trees here, and have learned a lot about the Army.

Most importantly, I have learned *from* the Army.

MICHAEL G. MULLEN
Admiral, U.S. Navy
Chairman of the Joint Chiefs of Staff



Success of counterinsurgency tactics permits ADM Mullen to walk through Sadr City, Iraq, July 2008

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Open Letter to *JFQ* Readers

JFQ seeks the assistance of its readership in exploring the ethical and legal lessons that have been revealed or relearned during the course of a protracted, irregular conflict in which insurgents employ terror as an asymmetric tool. As General George Casey points out in this issue, the U.S. military is now populated with a seasoned, professional force that compares favorably with any throughout history in its ability to address the widest panorama of challenges. Your experiences in modern counterinsurgency and irregular warfare are informed by legal and ethical restraints, constraints, and conundrums that can benefit all national security professionals, military and civilian. Please submit your essays, short or long, outlining your lessons by the deadline presented below.

JFQ encourages you to submit manuscripts that speak to your unique professional strengths and interests. Boldly challenge traditional thought and practices in the joint, interagency, national security community, and propose a new school solution!

JFQ would also like to solicit manuscripts on specific subject areas in concert with future thematic focuses. The following topics are tied to submission deadlines for upcoming issues:

March 1, 2009

(Issue 54, 3^d quarter 2009):
Military Force and Ethics
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September 1, 2009

(Issue 56, 1st quarter 2010):
Irregular Warfare
U.S. Special Operations Command

June 1, 2009

(Issue 55, 4th quarter 2009):
Force Modernization, Technology,
and Innovation

December 1, 2009

(Issue 57, 2^d quarter 2010):
The Expeditionary Interagency

JFQ readers are typically subject matter experts who can take an issue or debate to the next level of application or utility. Quality manuscripts harbor the potential to save money and lives. When framing your argument, please focus on the *So what?* question. That is, how does your research, experience, or critical analysis improve the reader's professional understanding or performance? Speak to the implications from the operational to the strategic level of influence and tailor the message for an interagency readership without using acronyms or jargon. Also, write prose, not terse bullets. Even the most prosaic doctrinal debate can be interesting if presented with care! Visit ndupress.ndu.edu to view our NDU Press Submission Guidelines. Share your professional insights and improve national security.

Colonel David H. Gurney, USMC (Ret.)
Editor, *Joint Force Quarterly*
Gurneyd@ndu.edu

LETTER

To the Editor—General James Mattis, USMC, commander of U.S. Joint Forces Command, recently proclaimed effects-based operations (EBO) unsuitable as a planning philosophy for warfare. His memorandum and article in *Joint Force Quarterly* (Issue 51, 4th Quarter 2008) have caused a bit of a stir among Airmen, who identify more closely with the notion of EBO than he does. And well they should because, at heart, this disagreement highlights a difference in vision that is fundamental to American security and power projection.

General Mattis thinks like an infantryman. For the infantry, the basis of military power is taking and holding ground. If one wishes to dismantle the government of a nation, the formula is simple: invade the country, occupy it, enforce the changes that seem appropriate by controlling the distribution of resources, and leave when. . . . Well, we're better at invading, occupying, and controlling than we are leaving. At least Germany, Japan, and South Korea seem to suggest as much. *Targeting*, in the strict sense of the word, is foreign to the infantryman. While his combined-arms compatriots in the artillery have a notion of the word, the infantryman worries primarily about taking ground and killing or capturing enemy soldiers. The artillery branch in support of the infantry concerns itself primarily with targets that stand in the way of taking ground. While the range of artillery has increased over the past 200 years, the big guns seldom fire farther than a man can walk in a day—hence the tactical symbiosis of artillery and infantry and their aversion for targeting at the operational and strategic levels of war. Adaptive Planning makes more sense than targeting in this business. As Napoleon put it succinctly, “First I engage, then I wait and see.” The aphorism “A plan seldom survives the first encounter with the enemy” supports the notion of adaptation as the touchstone of the infantryman.

Similarly, targeting is the touchstone of the Airman. As Philip Meilinger once put it, “Airpower is targeting, and targeting is intelligence.” While the logical syllogism “Airpower then is intelligence” may be seductive, it is not true. Nor is Meilinger

completely correct. Suffice to say, however, that targeting and intelligence are more important to Airmen than infantrymen, who can usually gather their own intelligence on the spot. Airmen, on the other hand, need an almost exact sense of targets before they take off—nay, before they arm and fuel their craft. This sense of targets begs the question of effects.

Thus, most theories of airpower are effects-based. Giulio Douhet, Billy Mitchell, Hugh Trenchard, and the Air Corps Tactical School (ACTS) bunch all argued both implicitly and explicitly for effects. Douhet aimed to intimidate the enemy population through punishment attacks using gas to extort a favorable conclusion from the opposing government. ACTS espoused high-altitude precision bombardment of industrial capability to paralyze a nation's warmaking capacity. No wonder many of the old heads at Air University such as David Mets reacted to effects-based operations as little more than “old wine in new skins.”

But to understand the real foundation of effects-based theory, and almost all airpower theory for that matter, one needs to visit the ossuary at Verdun or the World War I battlefields on the Somme and Isonzo Rivers in France and Italy, respectively. The cradle of airpower and effects-based operations lies in these grinding battles of attrition, where infantry contested the ground and artillery did most of the killing. The flower of European manhood, as well as what F. Scott Fitzgerald called “tremendous sureties and the exact relations that existed among the classes,” perished in these battles. Douhet, his theoretical progeny in ACTS, and more modern proponents of effects-based air operations were all looking for a different way. The Americans interpreted airpower in the context of labor-saving machinery, so vital to the expansive frontiers of the new nation. “Send a bullet, not a man” translated easily to “send a bomber, not a bullet” for those prone to view military aviation as a labor-saving and lifesaving approach to warfare. From its beginning, this sense of “economy” was present in airpower theory.

If nothing else, effects-based operations argue for economy of force as an alternative to attrition in formulating strategy and prosecuting war. Attrition and its older cousin annihilation are the defaults in strategic thinking. In fact, some have argued that attrition is the substitute for strategy, but these thoughts were lost on the likes of Erich von Falkenhayn, the architect of Verdun, and William Westmoreland, the broker of body counts in Vietnam. Even the brilliant Harvard professor Stephen Peter Rosen, in *Winning the Next War*, erred in praising a change in the Allies' “strategic measures of merit” on the Western Front of World War I from taking land to killing Germans. Most practiced in the business of strategy might recognize attrition as a measure, but not one with merit, and hardly one with strategic merit.

Enter effects-based operations, a theoretical amalgam with enough flanks to render it well nigh indefensible. The chief EBO proponent in recent literature is David Deptula, a “ward” of the Checkmate strategy cell in the Pentagon run by John Warden and the Black Hole planning cell for Operation *Desert Storm*, as well as the joint air operations director for Operation *Enduring Freedom*. Deptula published “Firing for Effect” in 1995 and “Effects Based Operations” in 2001. Both articles claimed in their titles to document a “Change in the Nature of Warfare.” Both conflated three or four distinct theories. The first is the indirect approach espoused by Sir Basil H. Liddell Hart in 1929 in a book titled simply *Strategy*. Liddell Hart was shocked by the carnage on the Western Front and sought to interpret all of military history in terms of direct or indirect approaches to strategic and operational objectives. The dichotomy, as most socially constructed choices between black and white or zero and one, is false. The phenomenon of military operations is spectral. It does have extremes, one represented by annihilation and the other by what we will term the “silver bullet.” But most military operations lie in the gray area between these two boundary conditions.

And John Frederick Charles Fuller, in his 1926 *The Foundations of the Science of War*, would instruct Soldiers, Sailors, and Marines how to operate between the poles. Fuller elevated one principle of war to the status of law, and that was economy of force. He claimed a cost, immediate and lasting, for every expenditure of blood, sweat, and treasure in war, and he urged military planners and practitioners to consider efficiencies to be every bit as important as results in their grim work. Here Fuller and Liddell Hart can be viewed as complementary because the indirect approach is often more efficient in the application of means.

Here was John Warden's inspiration. In considering the Cold War problem of stopping Soviet tanks in Germany's Fulda Gap, he focused on their dramatic fuel requirements and realized that tanks without fuel would soon cease to be a threat. He further realized that he needed to destroy neither the tanks nor their fuel, only the means of fueling the tanks. Hence, the sump pumps that conveyed fuel from storage containers to thirsty tanks led to his epiphany on effects-based operations and inspired him to write *The Air Campaign*.

But Warden did not stop there. He went on to formulate a systems-engineering approach to air warfare by characterizing the enemy, any enemy, as a "fractalized" system of systems. Each fractal was composed of five "rings": leadership, organic essentials, infrastructure, population, and military forces. Warden advocated paralyzing the enemy system through simultaneous or "parallel" attack of systemically critical targets in all five rings. While the ultimate target was enemy leadership, it was not to be destroyed or influenced by decapitation, but rather by systemic paralysis. And stealthy airplanes dropping precision-guided munitions were the perfect means to this end. Here Warden and his theoretical protégé Deptula joined Douhet in seeking the essence of airpower and effects-based operations: the connection between physical means and psychological ends in the influence of enemy leadership. Douhet assumed that pressed hard and punished enough, a bombed population would pressure its government to meet the air aggressor's demands. Warden and Deptula went at it through systemic paralysis, but the implied assumption was still present—that ultimately a government would yield to a

condition of hopelessness and fear induced by air attack.

Critics, Mattis among them, argue that Warden assumed a closed system and that governments and the societies they lead are more aptly characterized as open and adaptive systems—and much less susceptible to shock and paralysis than the airpower theorists are willing to admit. As J.C. Wylie put it in *Military Strategy*, "The ultimate arbiter of force is a man with a gun." Unless the man with a gun goes to Verdun. Then what does he become?

Robert Pape, once of the School of Advanced Airpower Studies and currently at the University of Chicago, threw a slightly different twist into the theory of coercive airpower. He claimed that when military forces are denied the means to fight through destruction of their weapons and systems, they usually carry on in predictable fashion and either surrender or flee. Pape used this simple fact to underwrite *Bombing to Win* and concluded that fielded forces were indeed the most lucrative target for air attack. In Mattis' parlance, fielded forces come much closer to a "closed system" than do an enemy's population and government—or society in general. In a sense, General Mattis is picking at the perpetual scab of airpower—or what Peter Faber called its "Holy Grail," this connection of physical means to psychological ends. While first-, second-, and even third-order physical effects are within reach of predictive analysis, even first-order psychological effects remain elusive at best.

Yet in all of this theoretical mish-mash, there appears a compromise that makes strange bedfellows of Pape, Deptula, Warden, and even Mattis. That is the application of effects-based air operations to the enemy's fielded forces. Herein lies a formula for joint warfare. Surface forces cause the enemy to concentrate and move, increasing his vulnerability to air operations. Air forces cause the enemy to consider the price of movement, while surface forces pose the continual threat of invasion, occupation, and regime change. These threats are strategically more important than their execution. Once exercised, surface forces display limited potential for escalation in stakes. They can only do a limited number of things once committed: take ground, hold it, and attempt to secure the enemy population. Once engaged in that task,

surface forces hold limited potential to do the same thing somewhere else. And that is when people typically start misbehaving. Air forces, and to a similar degree sea forces, are much more elastic and retain more potential for redeployment. Hence, we should seek to influence our adversaries through airpower and seapower first and husband our ground forces because of their great potential as a coercive element before deployment. In use of air and sea forces, effects-based operations appears to be a reasonable philosophy, perhaps applied best to the enemy's military. When attacking the enemy's fielded forces with an effects-based philosophy, we might expect a smaller mess, less press, and perhaps even a modicum of success.

EBO is an incomplete theory neither clearly articulated nor well defined. It was more a reaction to "attritional" thinking than anything else. Sometimes it is useful to view EBO as a "spectral" phenomenon. At one end of the spectrum is the silver bullet: Saddam Hussein is killed in a precision attack on the first night of *Iraqi Freedom*, or Hitler dies in 1939. At the other end of the spectrum is annihilation: we kill everyone in the enemy country with nuclear weapons. Attrition of enemy forces lies between these two extremes and is usually the default when one fails to produce a better strategy for getting the enemy to yield. It seems commonsensical that we would attempt to achieve effects that exhibit the one principle of war that J.F.C. Fuller elevated to the status of law—and that was economy of force—by using our labor-saving air and sea forces as precisely and wisely as possible to preserve the great potential that inheres in our uncommitted ground forces.

So let's not throw out the baby with the bathwater and return to attritional models of thinking. To do so would obviate the positive aspects of EBO. And there certainly are many.

—Stephen D. Chiabotti

School of Advanced Air and Space Studies

Executive Summary

We've converted from a conventional force to focus on counterinsurgency. That said, I think we've got to broaden our training and readiness with respect to full spectrum conflicts, put in balance the counterinsurgency requirement, which is very much in evidence in Iraq and Afghanistan, and preserve the capability to prosecute a conventional war.

—Admiral Michael G. Mullen
September 23, 2008

If you think about what landpower is in the 21st century, you realize it's the ability to generate decisive results on land. And who does that? It's not just the Army, it's the Marine Corps, it's Special Forces, it's our allied forces, it's indigenous forces, and also, it's all the interagency forces. And all those elements have to come together to generate the decisive results we are seeking.

—General George W. Casey, Jr.
October 21, 2008

Our Forum's long-planned focus on land warfare coincides with a number of contextual developments that influenced and altered its content. In August 2008, Secretary of Defense Robert Gates released the National Defense Strategy, which is a derivative of the 2006 National Security Strategy and Quadrennial Defense Review, incorporating lessons from irregular warfare in Afghanistan, Iraq, and elsewhere in the war on terror. As Secretary Gates has written in this issue's first installment, his strategy for supporting the President's national security objectives includes the goal of mastering irregular warfare to a degree of prowess that compares with U.S. military competence in large-scale conventional conflicts. It is well known that Army Field Manual 3-24/ Marine Corps Warfighting Publication 3-33.5, *Counterinsurgency*, has played an important role in the success of operations in Iraq, but perhaps more interesting is the fact that this manual and the success of U.S. land forces in extrapolating from it have also informed subsequent strategic planning guidance.

Admiral Michael Mullen is crafting a National Military Strategy (NMS) that is guided by the preceding National Defense Strategy (NDS) and tempered by the reality of a worldwide financial crisis that emerged shortly after the NDS release. The NMS delineates how the Armed Forces shall strike a better balance between a force structure optimized for low frequency, large-scale conventional military operations and one optimized for higher frequency irregular warfare. The critical expectation is that nonmilitary Federal agencies shall improve their expeditionary capabilities and bring their unique core competencies to bear on national security challenges, thereby improving the legitimacy and effectiveness of U.S. power. Yet the devil is always in the details, as H.R. McMaster has noted:



Marines aboard USS *Boxer* perform weapons training

U.S. Navy (Daniel A. Barker)

“War’s conduct and outcome depend in large measure on subjective factors such as the will of the people, the wisdom of political objectives, and consistency between those objectives and military strategy.” In the face of dwindling resources and long-term demand, our Forum explores the training, equipping, and future employment of land forces in support of the 2008 National Defense Strategy.

The Forum begins with the Chief of Staff of the U.S. Army, General George Casey, whose recent experience as commander, Multi-National Force–Iraq, and current Title X responsibilities for recruiting, training, and equipping the U.S. Army

make him an ideal candidate to outline today's challenges and the future of U.S. land forces. We began our interview with force generation and personnel management issues against the backdrop of protracted conflict, changing public attitudes, and demographics. General Casey walked *JFQ* through current operational strategies, then future combat systems, and finally his vision for the Army 20 years from now. General Casey believes that future land forces must be versatile, expeditionary, agile, lethal, sustainable, and interoperable. He concludes with his assessment of progress in the ongoing effort to improve jointness in the U.S. military.

The second and third Forum entries were invited to catalyze thought regarding the proper balance of training and equipment between low- and high-intensity conflict. To achieve this objective, we introduce two accomplished Army officers well known to land warfare professionals who debate this and other compelling limited war issues on military-oriented Web sites such as the Small Wars Journal. Honest military professionals can examine historic and contemporary facts and nevertheless arrive at opposite conclusions, as Colonels John Nagl and Gian Gentile demonstrate in this informative point-counterpoint.

In the opening salvo, Dr. Nagl notes that many U.S. defense analysts are voicing concerns over an emerging atrophy of conventional warfighting skills among U.S. land forces. He argues that anticipating future conflicts is important, but it is much more important to organize for and win the conflicts in which the United States is presently engaged in Iraq and Afghanistan. He surveys the legacy of lessons inferred from the Vietnam conflict and the complementary effect of the Cold War on doctrine development. Operation *Desert Storm* seemed to validate the U.S. bias toward conventional state-on-state warfare, and the Army consequently neglected to adapt to a changing global context that was evident in places such as Somalia, Haiti, and the Balkans. Dr. Nagl argues that the Army has not taken today's wars seriously enough and is too slow to recognize evident trends that should be shaping the forces that the United States will need tomorrow. The continuing inclination of defense institutions to devalue irregular warfare is irresponsible.

Colonel Gentile's counterpoint begins with a startling assertion that land force officers have not seriously debated the content and implications of recent field manuals addressing conventional military operations, counterinsurgency, or stability and support operations. He fears that the Army is placing primacy on nationbuilding over armed combat and that this trend exposes the United States to strategic peril. He doubts the capability of the military to reshape foreign cultures and governmental institutions, asserting that the Army should engage in such endeavors only for brief periods. In the face of limited resources, the training and organization of forces should focus on the core competency that is not resident anywhere else: fighting. The Army's emphasis on insurgency and foreign populations as the default center of gravity has become dogmatic and subtly shapes American foreign policy by improving military readiness for foreign interventions in pursuit of global stability. The current intellectual climate in the Army appears to emphasize short-term expedience, rather than longer term strategic goals.

In our fourth installment, Lieutenant Colonel Frank Hoffman hypothesizes that new environmental conditions are changing both the frequency and character of conflict. The character changes that he outlines boil down to the blending of war forms, resulting in increased lethality and aimed at perceived U.S. vulnerabilities. This construct, described as hybrid warfare, is distinguished by the simultaneous application of various forms of conflict, including criminal activity and terror. The author notes that hybrid wars are not new, but different and more complicated than compound wars, which describe operationally separate forces under unified direction. This article features a hybrid warfare case study exploring Hizbullah's operations in the second Lebanon war of 2006. Hoffman warns that a bifurcated focus on war forms, as presented by Nagl and Gentile, tends to overlook the most likely and dangerous of combinations: hybrid war.

The fifth essay is a denunciation of the trend toward a systems approach to war and an argument for a return to the traditional reductionist methods of military operational art. Professor Milan Vego points to recent conflicts and notes that scientific approaches to human competition are badly

flawed and that most efforts and resources devoted to them have been wasted. Beginning with the Air Corps Tactical School and strategic bombing, Vego surveys industrial web theory, Colonel John Warden's Five Ring Model, effects-based operations, and systemic operational design. The author argues that a systems approach to warfare is not much different than the "geometrical" or "mathematical" school that dominated military thinking in the late 18th century and to which Clausewitz was vehemently opposed. The strength of Professor Vego's article is his description of how military leaders develop operational thinking, which is "far more comprehensive . . . realistic, dynamic, and flexible than systems thinking." Excellence in the art of war, as in other art, cannot be reduced to paint-by-numbers.

Our concluding Forum entry explores innovative proposals to support land forces facing the dual challenges of long-range precision weapons and the logistic burden of dependence upon fossil fuels. The authors, Marvin Schaffer and Ike Chang, examine the requirements to support alternative propulsion systems for vehicles, and then associated fuel production options, most prominently hydrogen. In the category of electrical power generation, four nuclear reactor concepts are reviewed with an eye to mobility and safety. The authors conclude that the Army should develop a fleet of vehicles powered by a combination of electricity and hydrogen and fueled by theater-mobile nuclear reactors and hydrogen manufacturing facilities. These technologies already exist and may become practical in a decade. In the face of a predictable rise in the cost of fossil fuel, planning for theater-mobile alternatives must begin now. **JFQ**

—D.H. Gurney



General George W. Casey, Jr., is Chief of Staff of the U.S. Army.

An Interview with George W. Casey, Jr.

JFQ: *The Army traditionally recruits recent high school graduates. Today, however, fewer younger people meet minimum standards for service, and more are going on to higher education. There is a declining pool of candidates, and, frankly, the possibility of military service does not even enter the minds of many. What initiatives are under way to deal with this?*

General Casey: This gets right to the heart of the issue about how we recruit and sustain an all-volunteer force at war, and it's something that we're breaking new ground on every day. The last time we did it was

the American Revolution. That said, all the things you stated in the question are true: the number of high school graduates is down, the number with the propensity to serve is down. But last year, fiscal year 2008, almost 290,000 men and women enlisted or reenlisted in the Army, Guard, and Reserve. When they signed up, they all knew that they were going to war. That speaks highly of the men and women of the United States of America. Now, as you can imagine, we are looking at that and saying, "Are the recruiting procedures and skills that we've used since the early 1980s still sufficient to serve us in this current environment?" And intuitively, we say, "Probably

not; there's got to be something different that we can do." We're trying a range of things—one of them is the Army Experience Center in Philadelphia—to bring technology to bear in a way that relates more to the folks that we're trying to attract. And I've made a note to myself to swing by and see it myself. I've only heard about it, but it's probably a little too early to tell how it's going to work out.

One of the other things we're doing is a forum we're participating in called Investment in America. It's a group of business, not-for-profit, and Army leaders, and we meet every year and talk about ways that we can work together to do things that will help the country. Last summer, for example, the discussion turned to how we build an educated population for both the business community and the military. The business community faces the exact same challenges

Colonel David H. Gurney, USMC (Ret.), and Dr. Jeffrey D. Smotherman of *Joint Force Quarterly* interviewed General Casey at his Pentagon office.

that we do. The folks that they're getting out of the high schools don't have the intellectual skills, the writing skills, the communication skills, and frankly, they don't have the ethical and moral skills that business leaders are looking for. And so we've had several sessions since then, and we're working to put together a group where we can go into a city and say, "Here's a group of business, not-for-profit, and military folks who want to work with you to improve secondary education in your city." Obviously, business brings money and the promise of jobs; we bring Junior ROTC [Reserve Officers Training Corps] and other things. And I expect to have a plan that we might offer a couple of target cities. Mayor [Richard] Daley in Chicago has already done some amazing things with Junior ROTC, and when I was there for the Memorial Day parade, he invited me to be the grand marshal. The mayor had these marching units of Junior ROTC cadets representing the high schools, and he knew about every one of the schools. When you look at these formations walking down the street, almost all in step, you could see the power that Junior ROTC brings and the discipline that allows them to finish school, to get more out of the school that they're in, and achieve better test scores and better completion rates.

So this is a long way of saying we need to focus not only on changing how we recruit but also how we think we could work with folks on improving the level of secondary education in the country. We think it's something that we could do to help the country and also help us on the side.

JFQ: *The Army Force Generation model was created to optimize your personnel/training/equipment investments. Do you have any concerns that the Force Generation model short-changes the broader national security needs of the country, particularly those of the Governors and homeland defense needs?*

General Casey: Short answer: *no*. But in fact, I think it's even more important for us to put ourselves on a cyclical readiness model where we can both generate forces to sustain long-term commitments and have forces ready to do other things. Before September 11, 2001, we were basically a garrison-based Army that lived to train, and we were very good at it. The rotations into the Balkans were the closest we had to the situation we

find ourselves in now, and that certainly didn't impact anywhere near the percentage of the Army that these current deployments have. So we say that we need to be expeditionary, which is one of the key characteristics of the Army in the 21st century. To do that, we have to put ourselves on a rotational model. ARFORGEN [Army Force Generation] is that rotational model. It allows us, one, to give predictability to the Soldiers and their families because they know where they are in the cycle; two, to continually generate forces to sustain the long-term commitments; and three, to have forces in readiness that are trained, equipped, manned, that can go anywhere on short notice. If you look at the different phases of the cycle, I think it's exactly the model that we need for an era of persistent conflict. I believe that's where we are. We're at war, we've been at war for 7 years, and all the emerging global trends will probably exacerbate rather than ameliorate those conditions. And so I believe we, the ground forces, and the air and naval forces to a lesser extent, are going to be committed either in engagements or other activities for the foreseeable future, and we need to have a force generation model that allows us to continually prepare our forces for that.

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I mentioned that before September 11, we were a garrison-based Army that lived to train. As a result, all our systems of personnel, education, family support, training—they're all designed to support a pre-September 11 Army. But on a force generation model, you have different requirements. For example, we are trying to move this model so that when a unit is in the deployment window, it can deploy without stop-loss. Our personnel systems aren't designed to do that now, and you can imagine what it takes to get everybody in a unit lined up so they don't have a DEROS [date eligible to return from overseas] date in the middle of the deployment. So that's where we have to get to. And if you think about training, everything else has an aspect like that.

So I think the force generation model is exactly where we need to be. Frankly, we're the last Service to come on to this. The Marines and Navy have been doing it for years; the Air Force had their expeditionary rotational forces, and this is something that I think we need to do, and we're doing it now.

The Governors and homeland defense—I think this model actually *helps* the Governors because it gives them visibility of when their forces will be deployed, and it allows them to work the interstate compacts to hedge against problems that may arise when the forces are gone. Steve Blum [Lieutenant General H. Steven Blum, Chief, National Guard Bureau] promised the Governors several years ago that he'd ensure they'd always have 50 percent of their capabilities, and he's been able to do that. So actually, I think the ARFORGEN helps the Governors and the homeland security needs.

JFQ: *The National Guard has an informal social compact with the U.S. population regarding the use of the Reserve Component. The National Guard must have forces ready and available for domestic disasters and threats, while at the same time they are heavily engaged overseas. What steps have you taken to ensure that there is no negative impact on our strategic reserve?*

General Casey: That's a great question, and it's one that we're going to have to continue to wrestle with in the coming years. We say that we need to adapt our Guard and Reserve forces from their role as strictly a strategic reserve to an operational force that can augment the Active forces in sustaining commitments abroad. That's caused major change in how we deal with the Guard and Reserve because all of the policies, procedures, and laws governing the Guard and Reserve were developed after the Korean War. As with anything else in Washington that's 60 years old, there are deep roots. And the policies aren't necessarily designed to support the way we use the Guard and Reserve right now. We have told the Guard and Reserve that we want to work toward a rotational scheme where they deploy for a year and are home for 4 or 5 years. They tell us that's sustainable. I believe it is sustainable, but we're not there yet. Right now the Guard and Reserve are deploying about once every 3½ years, but their recruiting and their retention are still good. So we're wrestling with finding

the right role for the Guard and Reserve, and I think that a new administration is probably going to want to look at whether we are prepared to sustain a commitment of 60,000 to 70,000 mobilized Reserve Soldiers and Guardsmen for the indefinite future. It's a question that we've discussed, and the Guard and Reserves say it's sustainable, but it's not necessarily our call. Right now, we have about 68,000 mobilized Guardsmen and Reserve Soldiers on Active duty, and obviously if we don't have access to them, then that speaks to what we need to do with the size of the Active force. So that's an important consideration as we go forward.

With respect to the strategic reserve part of this, the Guard and Reserve are about half our force. We're much more reliant on the Guard and Reserve than are the other Services. And so we always have some portion of them not committed. There are about half a million Guardsmen and Reservists, and we've had about 60,000 or 70,000 deployed on a given day, so we still have a strategic reserve, even though we are deploying the bulk of them as an operational force.

JFQ: *A number of academics assert that the time-honored code of loyal opposition behind closed doors is in decline and that private dissent is neither encouraged nor well tolerated within the Army. What is your view of this charge?*

General Casey: I think it's outdated. When you have an organization this size, about a million people, I'm sure there are some people who feel like dissent isn't tolerated. But by and large, this is a combat-seasoned force. The leaders have all known combat, and in combat, things don't always go exactly how you planned. What you want is people asking hard questions before an operation. I can remember as a captain getting the operations order brief from the battalion S3 [commander's principal staff officer for matters concerning operations, plans, organization, and training], and at the end of every brief, he said, "Are there any questions?" And you'd be sitting there thinking, "This is the dumbest thing I ever heard," but everybody said, "No," and you all charged out the door. Well, that doesn't happen any more today, because people's lives are at stake. You'd say, "Wait a minute, colonel, time out! I don't get it." So I don't entirely dispute the conventional wisdom. In fact, when I hear,

"Good news, general, we have a course of action we all agree on," I sometimes think, "Uh-oh, this might be a half-baked course of action because it's all about compromise."

JFQ: *On September 30, 2008, Secretary of Defense Gates said, "One of the enduring issues our military struggles with is whether personnel and promotions systems designed to reward command of American troops will be able to reflect the importance of advising, training, and equipping foreign troops—which is still not considered a career-enhancing path for our best and brightest officers." The Army is investing in the development and training of large numbers of advisors to serve in Iraq and Afghanistan. Will the Army continue and expand this program? If so, will it become a career track?*

General Casey: I don't think it will become a career track, but let me give you some background. We started the transition team program when I was in Iraq, and I talked to every group that came in and told them that the success of the mission in Iraq, and also in Afghanistan, was dependent on the security forces of the other countries being able to provide domestic order and deny their countries as a safe haven for terror. So we weren't going to succeed in either Iraq or Afghanistan until the local security forces succeeded, and so they were a critical enabler to the overall success of the mission.

It's always hard to change the culture. And frankly, it took almost a year for my own personnel guys to change the policy to make transition team leaders a command select position for the brigade and battalion transition team leaders. But we're doing that. A board met this past fall that actually picked folks off the central selection list to lead these efforts. It is that important.

Now, there are some folks who say we need an advisor corps. I'd say we have an advisor corps; it's called Special Forces. The question is how large of an effort do we need for training foreign armies. I got together with Jim Mattis [General James N. Mattis, USMC, commander, U.S. Joint Forces Command], Jim Conway [General James T. Conway, commandant, U.S. Marine Corps], and Eric Olson [Admiral Eric T. Olson, USN, commander, U.S. Special Operations Command]. We all sat down and said, "Okay, what do we really need here?" First, we all thought we needed to set ourselves up in Iraq and Afghanistan for the long haul because we're going to be training the militaries and the police forces in Iraq and Afghanistan for a while. Then we thought that we could probably do the rest of the engagement with other militaries with Special Forces, and we're growing a battalion each year over the next 5 years. There may be times when we need to have Special Forces teams augmented with conventional forces. For example, we can send a 10-man team out of a brigade

U.S. Army (Courtesy Wittmann)



GEN Casey and Chicago Mayor Richard Daley participate in Memorial Day celebration

headquarters, lash them up with an A-team, and they can assist in training with foreign brigades. But more and more, the people who need our help are not going to be in a position where they can be openly seen with American Soldiers running around the country. So we're looking more toward the majority of this work being done by Special Forces, augmented, when they need to be, by regionally oriented conventional forces, which is something else the ARFORGEN model allows us to do.

We also asked ourselves if we really think we're going to build another country's army and police forces and ministries from the ground up any time soon. And the answer was, probably not. We've got several challenges: we've got to set ourselves up to do Iraq and Afghanistan for the long haul, and then figure out how we augment Special Forces to do the other engagement that we need. That's kind of the direction we're going. In the interim, we have a training center for transition teams that we're going to continue to run, it's going to move down to Fort Polk, out of Fort Riley, and we're going to have a brigade dedicated to doing nothing but training transition teams. So we'll continue to do that for a while.

I just came back from Afghanistan, and more and more I'm hearing Soldiers on the ground say that the partnerships—matching an Afghan battalion up with a coalition battalion or a coalition company—is having a greater impact on the indigenous forces than the transition teams. We may not need as many transition teams; just aligning them with the coalition forces may be a better way to go. In Iraq we had both; we had transition teams and partnership, and that seemed to work. So I think you may see how transition teams are evolving a little bit in Iraq and Afghanistan, and we're working with the theater to see what the best way to go is. But at least in Iraq, and to some extent in Afghanistan, the proficiency of indigenous forces is getting to where they don't need to have somebody with them every day; they can operate side by side. So I think it's going to evolve a little bit, but I'm not exactly sure how it's going to go.

If you think about what landpower is in the 21st century, you realize it's the ability to generate decisive results on land. And who does that? It's not just the Army, it's the Marine Corps, it's Special Forces, it's our allied forces, it's indigenous forces, and also,

it's all the interagency forces. And all those elements have to come together to generate the decisive results we are seeking. Indigenous forces are a huge part of that, and our guys are recognizing that more and more. When I started in Iraq, it was our nature to say, "Let me do it." And I did this myself in Bosnia. And over time, we've come to realize that the key to long-term success is indigenous forces. It's artful; it takes more art to train somebody else to do missions than to do them yourself, but I think we're getting more and more sophisticated in our abilities.

JFQ: *How might the need to address hybrid threats impact the Future Combat Systems [FCS] program, which is founded on a more conventionally oriented type of threat? Is the FCS program well balanced in the overall conflict spectrum?*

General Casey: To be fair, when we started down the FCS road in the late 1990s, it was designed to fight conventional war as we thought it would be in the 21st century, and that's where we started. Over time, our understanding of irregular warfare has matured and evolved, and frankly I came back from Iraq and I took one look at the FCS capabilities we had and said, "This is the stuff we need in Iraq and Afghanistan today." We went through a big review of the program and announced in May that we have these five capabilities that were developed for the FCS program that are out now in the hands of Soldiers who are testing them: the unmanned aerial vehicle, the robot, the untended ground sensors, the non-line-of-sight cannon, which is basically a 40-kilometer cruise missile that will fly in the window of a house, and the land warrior system that we cancelled, but someone was smart enough to keep one battalion's worth of it, and we put it on a battalion that went to Iraq. I visited them there, and they said that they would rather leave the compound without their weapons than without their land warrior system. It basically gives them an eyepiece where they can view a computer screen, and they have a military BlackBerry, so they can stay connected when they're out there. They know where everybody in their squad is—they know where everybody is, so their situational awareness is huge. So you put all that together, and we put it in the hands of Soldiers out at Fort Bliss who had just come back from Iraq, and they all said the same

thing I did, that *these are the capabilities we have to have right now.*

We were originally going to put all that in the heavy force, which is already the best heavy force in the world. And so we said, why don't we take these capabilities and put them in the light forces, who need them right now. So we're doing that, and we'll have it in the hands of the light Soldiers in 2011. The first brigade, which means probably the last of the "Grow the Army" brigades that we build, will be outfitted with the FCS systems and the first increment of the network, and we'll continue to build the rest of the systems over time.

So we have to build the Future Combat System as a full-spectrum combat system. I think we're moving in the right direction, and what we're going to see now is not just 15 FCS brigades that come out of this, but we're going to have an FCS-enabled Army, and it will start with the infantry guys, and that will be a fundamentally different Army. What you're going to see also is the FCS capabilities overlaid on modular organizations, and that's what the Army of the 21st century will ultimately look like. We're still refining that, but simplistically said, that's what's going to happen. It will be a full-spectrum Army.

JFQ: *The United States persistently fails to learn from past mistakes by taking "peace dividends" and downsizing or neglecting the Armed Forces in the aftermath of significant conflict. In the face of adverse economic conditions, how concerned are you about the possibility of yet another shortsighted readiness calamity?*

General Casey: Any reader of our history has to be concerned. After every war, we have been drawn down drastically. When I had a transition team help me prepare to come into this job, I had one group focus on the future and one group focus on the present. The future group was looking at about 2020 to determine the kind of Army we're going to need then, and the current group was looking at the current force, but I also said, "You guys, go back 13 years in the other direction, go back to 1993 and tell us what we were doing back then." Think about it. We were basking in the glow of *Desert Shield/Desert Storm*, we were patting ourselves on the back for winning the Cold War, we were spending the peace dividend as fast as we could write the checks, and we were drawing the Army down by 300,000—from

780,000 to 480,000. We were cutting the CIA [Central Intelligence Agency], we were cutting USAID [U.S. Agency for International Development]. I tell folks, “Now we’re at war, we’re facing a future of persistent conflict, you ought not to be thinking about taking the peace dividend right now.” All that said, I don’t think anybody knows the impact of the financial crisis, but none of us think it’s going to be positive, so I think there’s going to be real tension on this. We just have to be careful, we have to keep reminding ourselves that we’re at war, we’ve got over 150,000 Soldiers deployed in combat, we’ve got to be really careful with that; they need to be sustained. And I think they will.

JFQ: *General James Conway says that it is vital to extract the Marine Corps from land fighting and return it to its expeditionary, maritime-based roots because the world 20 years from now will be drastically different. How will the Army recalibrate for the challenges anticipated two decades from now?*

General Casey: [General Conway] talks about this all the time, and he’s right. We have done an awful lot of thinking about what the future looks like. Pete Schoomaker [General Peter Schoomaker, 35th Chief of Staff of the Army] had us on a great track with the conversion to these modular organizations—we’re 80-plus percent done—and rebalancing skills to ones that are more relevant in the 21st century. We’re transforming. And our knowledge is increasingly enhanced by what we’re learning daily in Iraq and Afghanistan, and we’ve been looking hard at what we think the strategic environment is going to look like. I believe the future will be one of persistent conflict where we’re dealing with state and nonstate actors who are increasingly willing to use violence to accomplish their objectives. That doesn’t mean we’re going to be engaged at the same level as Iraq and Afghanistan, but we have to prepare ourselves to deal with that eventuality. The future is not going to be peaceful.

The second part is that we’ve asked ourselves, how has the character of conflict changed? The nature of war doesn’t change, but the character of conflict can change, and as I look back at the character of the wars that I’ve prepared to fight in my career, it’s fundamentally different now for young folks. They’re dealing with nonstate actors. I look at the Lebanon conflict in December 2006. Here

you have a nonstate actor, Hizballah, operating inside a state, Lebanon, fighting another state, Israel, [and] supported by yet another state, Iran. And Hizballah starts the war with 13,000 rockets: The tools of power are no longer exclusively in the hands of states, and nonstate actors are a bit harder to deter than state actors. So we looked at that—we looked at the need to operate with indigenous forces, the need to operate with other agencies of the government, the need to sustain ourselves in austere environments over the long haul.

And we believe that land forces for the future need to have six characteristics. First of all, they need to be versatile. I gave you my thoughts about the future knowing full well that the best we’re going to do is get it about right. And so we have to design and equip forces with a doctrine that allows them to be rapidly tailored to the future as it presents itself. The modular organizations that we’ve gone forward with here are a good example of that.

Second, they’ve got to be expeditionary. With the exception of domestic support to civil authorities, we’re going to be doing things abroad, and we have to be able to get there quickly, we have to sustain the fight, and we have to build leaders with an

the future will be one of persistent conflict where we’re dealing with state and nonstate actors who are increasingly willing to use violence to accomplish their objectives

expeditionary mindset that are uncowed by going into a strange environment. I just saw that up in New York. I went up to visit the 3/10 Mountain [3^d Brigade Combat Team, 10th Mountain Division], whose mission was just changed from Iraq to Afghanistan. And what you’ve got there is not a bunch of guys thinking they’re going to go out there and do something new, but seasoned veterans who understood the challenges they were getting into and weren’t cowed by it. They were confident. They had that expeditionary mindset.

Third, they need to be agile. Leaders, units, and institutions need to be agile. Our institutions aren’t very agile right now because we haven’t had to be agile in the past. Secretary Gates asks why the heck it takes so long to get an MRAP [Mine Resistant Ambush Protected vehicle] and additional ISR [intelligence,

surveillance, and reconnaissance] over to Iraq or Afghanistan. We need to be better, and we need to have institutions that, when we get put in a new situation, can rapidly evaluate it and give the Soldiers the tools and the equipment needed to get the job done.

Fourth, they have to be lethal. That is our core competency, and we can’t forget that. We can’t get diverted by all these other things that we have to do. Lethality is our core competency, and it’s got to be precision lethality. That goes with the kind of systems we’re developing.

Fifth, they have to be sustainable, and not just sustainable in austere environments. We’ve got to have a reduced logistical footprint because the more equipment you expose on the roads, the greater your challenges are going to be. The other piece of sustainability is having this force generation model that allows you to sustain missions over the long duration.

Lastly, we have to be interoperable. Interoperability goes well beyond joint and combined forces. We have to be able to bring in all the effects that the interagency and the local governments bring to bear. I have come to think that the planning and organizational skills of our land forces are a national asset and ought to be treated as a national asset. We understand how to plan, organize, and integrate. I watched it in Iraq. We’re doing it in Iraq, and we’re doing it in Afghanistan. We understand how to bring different elements of power together to generate that decisive result. We don’t have to be in charge; other elements of the government ought to leverage that potential and that capability. So interoperability goes well beyond the same size ammunition and the same radio frequency. We’re at a whole new level now, and we have to be able to bring all those elements of power together. So those are the six characteristics that we’re designing our forces around.

We have come a long way with jointness. I’ve watched us get better and better. We have a growing generation of officers at the company and battalion level who understand jointness. We’ve had infantry platoons with Marine battalions calling in naval air in Fal-lujah, so these guys understand how to apply joint power in combat. And we have to figure out how to continue to build on that and then to bring in the interagency and really expand the notion of jointness to work in interoperability with all the other elements of government. I think that’s something that all the Services can work on in the years ahead. **JFQ**

Let's Win the Wars We're In

Your mission remains fixed, determined, inviolable. It is to win our wars.

—General Douglas MacArthur¹

By JOHN A. NAGL

A stunning if predictable development in the military community over the past 2 years has been the backlash against the promulgation of counterinsurgency learning in the midst of the ongoing campaigns in Iraq and Afghanistan. These wars have spurred long-overdue changes in the way the U.S. military prepares for and prioritizes irregular warfare. These changes are hard-won: they have been achieved only after years of wartime trials and tribulations that have cost the United States dearly in money, materiel, and the lives of its courageous Servicemembers.

Yet despite the relatively tentative nature of such changes, there are already those who predict grim strategic outcomes for America if its military, particularly the Army, continues the process of adaptation. Gian Gentile, the vocal Army critic of counterinsurgency adaptation, has written that a “hyper-emphasis on counterinsurgency puts the American Army in a perilous condition. Its ability to fight wars consisting of head-on battles using tanks and mechanized infantry is in danger of atrophy.”² He is not alone in his views. Three brigade commanders in the Iraq War wrote a white paper warning about the degradation of seldom used field artillery, declaring that the Army is “mortgaging [its] ability to fight the next war” by neglecting the requirements for combined arms operations.³ The Army Secretary, Pete Geren, and Chief of Staff, General George Casey, both assert that the Army is

C Company, 2nd BN, 27th Infantry Bgt (Samuel Berdai)

Elements of 25th Infantry Division conduct combat operations with Iraqi army amid burning oil fields

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“out of balance” in part because of “a focus on training for counterinsurgency operations to the exclusion of other capabilities.”⁴ Prominent civilian thinkers in the academic community have presented similar arguments.⁵ With such dire warnings, one might forget that there’s a war on right now.

The mission of the U.S. Army is to fight and win the Nation’s wars. When bullets are flying, Soldiers are in harm’s way, and the national interest is at stake, the Army must devote the last full measure of its devotion to winning the wars it is in. Future conflicts are important, but the present conflicts are critical: the United States is not winning a counterinsurgency campaign in Afghanistan and, at great cost, just managed to turn around another in Iraq that was on the verge of catastrophic collapse only 2 years ago. A continued American commitment to both campaigns is likely necessary for some years to come. America’s enemies in the Long War—the al Qaeda terrorist organization and its associated movements infesting other states around the world—remain determined to strike. A host of trends from globalization to population growth to weapons proliferation, which the Army has recognized in its latest posture statement, suggests that the “era of persistent conflict” against lethal nonstate irregular foes will not end any time soon.⁶ For all these reasons, the security of the Nation and its interests demand that the Army continue to learn and adapt to counterinsurgency and irregular warfare and that it institutionalize these adaptations so they are not forgotten again.

Forgetting Lessons—On Purpose

We put an army on the battlefield that I had been a part of for 37 years. The truth of the matter is: It doesn’t have any doctrine, nor was it educated and trained, to deal with an insurgency. . . . After the Vietnam War, we purged ourselves of everything that dealt with irregular warfare or insurgency, because it had to do with how we lost that war. In hindsight, that was a bad decision. . . . We have responsibility.

—General John Keane⁷

Critics charge that by adapting more fully to the unique demands of counterinsurgency, the Army is preparing to fight the last war. In this accusation, “the last war” refers not only to Iraq but also to an even earlier

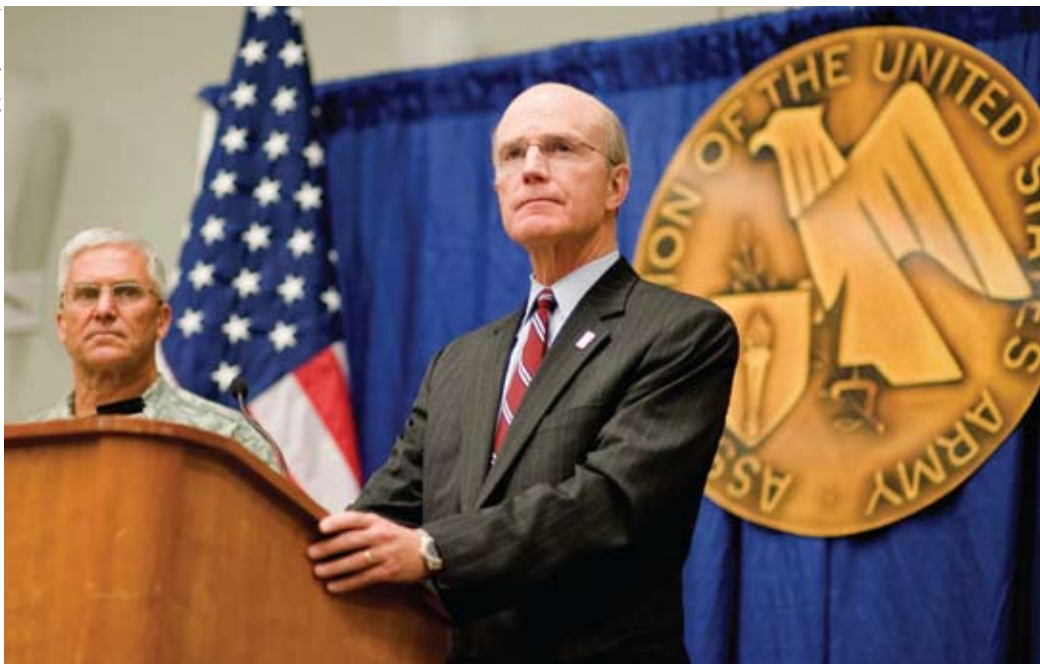
controversial conflict. As Gentile sees it, those seeking to improve the Army’s counterinsurgency capabilities are “busy fighting Vietnam all over again in Iraq.”⁸ This implies that the Army has nothing to learn from the Vietnam counterinsurgency experience.

Interestingly, that was precisely the Army’s view at the time. In the wake of that war, the Army opted to focus on large-scale conventional combat and “forget” counterinsurgency. Studies criticizing the Army’s approach to the Vietnam War were largely ignored. The standard narrative was promulgated by Colonel Harry Summers in his 1982 book *On Strategy*: “Instead of orienting on North Vietnam—the source of the war—we turned our attention to the symptom—the

reasons to renew its emphasis on conventional combat. The threat of a Soviet invasion of Europe was a clear and present danger at the time. The post-Vietnam Army was a demoralized “hollow force” wracked by desertion and drug abuse. It badly needed to be infused with a new sense of mission, which was achieved through doctrinal revisions and a massive conventional force buildup from the late 1970s through the 1980s.

studies criticizing the Army’s approach to the Vietnam War were largely ignored

U.S. Army (D. Myles Cullen)



Army Chief of Staff GEN Casey and Army Secretary Pete Geren brief congressional staffers

guerrilla war in the South.”⁹ Summers argued that the focus of American strategy should have been to defeat North Vietnam through conventional operations; the insurgency itself was inconsequential. General William Westmoreland and many others concurred with this assessment: “the United States failed in Vietnam because it did not use its military power to maximum advantage,” largely due to restrictive micromanagement by civilian policymakers in Washington.¹⁰ The solution was to rebuild an Army focused exclusively on achieving decisive operational victories on the battlefield.

The Army certainly did need to be rebuilt after Vietnam, and there were good

The dark side of this rebirth, however, was the rejection of irregular warfare as a significant component of future conflict. Rather than rethinking and improving its counterinsurgency doctrine after Vietnam, the Army sought to bury it, largely banishing it from its key field manuals and the curriculum of its schoolhouses. Doctrine for “counterguerrilla” or “low-intensity” operations did make a comeback in the 1980s, but the Army regarded such missions as the exclusive province of special operations forces. Worse, these revamped doctrinal publications prescribed the same enemy-centric conventional operations and tactics that had been developed in the early 1960s, again giving short shrift to the

importance of securing the population and countering political subversion.¹¹ It was as if the Vietnam War had never happened.

The Army's superlative performance in Operation *Desert Storm* in 1991 provided validation for its reforms but further entrenched the mindset that conventional state-on-state warfare was the future, while counterinsurgency and irregular warfare were but lesser included contingencies. The Army did not adjust to the fact that its peer competitor had collapsed, spending the decade after the end of the Cold War continuing to prepare for war against a Soviet Union that no longer existed. As Brian McAllister Linn writes in his recent survey of the Army's history, the Army's post-Cold War leadership believed that "the army should devote itself to the organizational 'imperatives'—doctrine, force mixture, recruiting, and, above all, training—at which it already excelled."¹²

Deployments to Somalia, Haiti, and the Balkans in the 1990s brought the Army face to face with different types of missions that did not adhere to the *Desert Storm* model. Despite the relatively high demand for its forces in unconventional environments, the Army continued to emphasize "rapid, decisive battlefield operations by large combat forces" in its doctrine and professional education. For example, "a year after the humiliating withdrawal from Somalia, [Command and General Staff

College] students honed their planning skills on a scenario predicated on a reconstituted Soviet Union launching vast mechanized armies at NATO [the North Atlantic Treaty Organization]."¹³ The overriding emphasis on conventional operations left the Army unable to deal effectively with the wars it ultimately had to fight, as Secretary of Defense Robert Gates has observed:

*In the years following the Vietnam War, the Army relegated unconventional war to the margins of training, doctrine, and budget priorities. . . . This approach may have seemed validated by ultimate victory in the Cold War and the triumph of Desert Storm. But it left the service unprepared to deal with the operations that followed: Somalia, Haiti, the Balkans, and more recently Afghanistan and Iraq—the consequences and costs of which we are still struggling with today.*¹⁴

Unprepared is a hard word, but Iraq and Afghanistan have presented the Army with hard realities that it has fought to overcome.

Failure of Adaptation

Our military institution seems to be prevented by its own doctrinal and organizational rigidity from understanding the nature of this war and from making the necessary modifications

to apply its power more intelligently, more economically, and above all, more relevantly.

—Brian Jenkins¹⁵

The Army's lack of preparedness was exacerbated by its failure to adapt fully and rapidly to the demands of counterinsurgency in Iraq and Afghanistan. By early 2002, the Taliban appeared defeated and Afghanistan firmly under the control of America's Afghan allies. The fall of Baghdad in April 2003 after a 3-week campaign initially appeared as another confirmation of the superiority of U.S. military capabilities. In both instances, the enemy had other ideas. Inadequate contingency planning by both civilian leaders and military commanders to secure the peace contributed to the chaotic conditions that enabled insurgent groups to establish themselves. With some notable lower level exceptions, the institutional Army did not adapt to these conditions until it was perilously close to losing these wars.

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Soldier scans sector during Operation *Raider Harvest*, Muqadadiyah, Iraq

U.S. forces faced with insurgencies had no doctrinal or training background in irregular warfare and reacted in an ad hoc fashion to challenges. The Army's official history of the Iraq War between 2003 and 2005 argues that:

*While relatively few American Soldiers in Iraq in 2003 were familiar with counterinsurgency warfare and its theorists, it did not take long before many of the basic concepts of counterinsurgency made their way into U.S. Army planning and operations. This process was indirect and based on immediate requirements rather than experience or doctrine. . . . In the spring and early summer, most Soldiers assessed the situation in their [areas of operations] and designed responses they believed were critical to address the unique political, economic, and military challenges in those areas.*¹⁶

The events that transpired in Iraq (as well as Afghanistan) after the end of major combat operations belie this rather rosy explanation. Many early ad hoc approaches to counterinsurgency failed to protect the population from insurgent attacks and alienated the people through the excessive use of force.¹⁷ Many units, such as the 3^d Armored Cavalry Regiment under Colonel H.R. McMaster, did develop and employ effective population-centric counterinsurgency techniques independently, but such improvements were not emulated in a coordinated fashion throughout the force.¹⁸ It was not until 2007 that the Army finally adopted a unified approach that effectively secured the population and coopted reconcilable insurgent fighters in Iraq—but the Army still has not managed to make that leap in Afghanistan.

The brave efforts and sacrifices of American Soldiers in both theaters have added up to less than the sum of their parts due to institutional resistance to change. Even as counterinsurgency learning percolated throughout the ranks, the Army was slow to recognize the need to adapt its doctrine, organization, training, and procurement priorities to ensure that its forces were properly prepared for the wars they were fighting. Secretary Gates recently told military officers at the National Defense University, “For every heroic and resourceful innovation by troops and commanders on the battlefield, there was some institutional shortcoming at the Pentagon they had to overcome.”¹⁹ The Department of Defense (DOD) as a whole was still operating on a peacetime footing. Its documented failure to quickly provide sufficient quantities of up-armored Humvees, Mine Resistant Ambush Protected vehicles, and surveillance equipment to troops in the field is illustrative of an organization practicing business as usual at a time of crisis. The Army, for its part, calls for the Future Combat System, the “Grow the Force” initiative, and more Brigade Combat Teams as its solution to the problems of insurgencies.²⁰ However laudable these long-term plans might be, they do not adequately address the immediate requirements of current conflicts.

Lack of urgency amid rapidly changing circumstances is a theme that has run throughout the Army’s handling of Iraq and Afghanistan. In Iraq, the Army clung to the failing strategy of rapidly transitioning security responsibility to indigenous forces as Iraq fell into chaos in 2006 and persistently

resisted calls for troop increases to provide population security.²¹ U.S. forces in Afghanistan remain undermanned, and to fight the resurgent Taliban, they have relied heavily on airstrikes, which have served to kill and alienate civilians in large numbers. In both theaters, the mission of training and advising allied security forces has been severely under-resourced and is still organized and manned in makeshift fashion. According to the Government Accountability Office, as of April 2008, the United States has fielded just 46 percent (1,019 of 2,215) of the DOD-required number of embedded trainers for the Afghan National Army,²² and only about 32 percent (746 of 2,358) of required military mentors to the Afghan National Police²³—despite the fact that victory in this struggle depends on America’s ability to develop capable host-nation security forces.

The most frustrating aspect of these problems is that they represent a failure to learn from history. As Major Niel Smith, USA, rightly laments, “It is embarrassing that it

*the mission of training and
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fashion*

took us over three years to develop a comprehensive approach to counterinsurgency in the field when many of the ‘lessons’ were found on the bookshelves of the post library.”²⁴ The key tenets of counterinsurgency—including the need to secure the population, subordinate military measures to political ends, use minimum force, and work through the host nation—are not new. Practitioners from T.E. Lawrence to David Galula to Sir Robert Thompson to Robert Komer all expounded cogently on these issues based on extensive experience from the Middle East to the Far East. Although these lessons were freely available, the Army failed to begin institutionalizing counterinsurgency learning until the 2006 development of U.S. Army Field Manual (FM) 3–24/Marine Corps Warfighting Publication 3–33.5, *Counterinsurgency*.

In many ways, the Army has still not institutionalized the lessons of 5 years of fighting in Iraq and 7 years in Afghanistan. Battalion

commanders leading counterinsurgency operations in Iraq as part of the “surge” in 2007 and 2008 still had not read Galula or the other essential texts on counterinsurgency.²⁵ Useful tools to secure and control the population, such as biometric identification measures, remain in short supply. No institutional doctrine guides the still-ad hoc effort to advise the Iraqi and Afghan security forces. And there is still no systematic attempt to inculcate the hard-won truths about the wars of today into the next generation of Soldiers, as a young second lieutenant in the Army’s Basic Officer Leader Course (BOLC) recently discovered:

I am through the third week of the course now. During our down time, I have been reading FM 3–24. I have had several of my fellow [lieutenants] ask me, “What the heck is that?” They have never heard of it. (Nor have they heard of Cobra II, Fiasco, or Assassins’ Gate, which I have also had on me.) I asked one of our platoon cadre if a class on [counterinsurgency] COIN operations is part of our BOLC II curriculum, and he asked me, “What is COIN?”²⁶

Other DOD schools provide students with far better counterinsurgency education. The Army could learn from the Marine Corps’ Infantry Officer Course, where students are required to read FM 3–24 and other key works by theorists and practitioners such as Galula and T.X. Hammes.

Preparing for Future Warfare

Correcting the persistent flawed thinking about future conflict requires overcoming significant obstacles and acknowledging that adversaries will force real rather than imaginary wars upon military forces until those forces demonstrate the ability to defeat them.

—Colonel H.R. McMaster²⁷

These sins of omission indict an Army that has not taken its current wars seriously enough. When the Army is fully engaged, with half its combat brigades deployed in two wars for which it was not adequately prepared—including one that the Chairman of the Joint Chiefs of Staff is “not convinced that we’re winning”²⁸—it is its clear duty to adapt to the demands of the current fights. The fact that the Secretary of Defense had to remind the Army that it was “unprepared”

for the wars it was required to fight and also warn the entire defense establishment against “Next-War-itis” is illustrative of a pernicious mindset that irregular warfare is a fleeting phenomenon of lesser importance than conventional conflicts.²⁹ It would indeed be convenient if that were the case. Unfortunately, the conflicts in Iraq and Afghanistan threaten key U.S. interests if left unresolved and represent a harbinger of wars to come.

Talk of overcommitment to the current wars suggests there is something more pressing on the horizon. Michael Mazarr, for example, asserts that the military should avoid irregular warfare because large-scale wars, “were they to occur, would engage U.S. interests that dwarfed anything at stake in contingencies such as Somalia or even Afghanistan.”³⁰ Apparently Iraq, sitting at the heart of the Middle East on top of the fault line between the two major sects of Islam as well as the globe’s second largest proven oil reserves, is not pressing enough. The near-civil war conditions that prevailed there in 2005 and 2006 brought in covert Iranian intervention and could have drawn involvement from Saudi Arabia and other

Sunni Arab states, becoming a theater for a destabilizing proxy war between the region’s competing powers. Afghanistan, meanwhile, is the focal point of the war on terror. The Taliban, with its tribal allies, seeks to drive out the United States and NATO in order to retake control of the country. The same insurgency threatens the stability of Pakistan, a country that possesses nuclear weapons and is currently the base for al Qaeda. Giving the Taliban any more breathing room would have disastrous consequences for the security of the entire region and for the United States.³¹

A close look at the historical record reveals that the United States engages in ambiguous counterinsurgency and nation-building missions far more often than it faces full-scale war. The Army’s new FM 3–07, *Stability Operations*, correctly notes that “Contrary to popular belief, the military history of the United States is one characterized by

stability operations, interrupted by distinct episodes of major combat.”³² Just since the end of the Cold War, American troops have been deployed to make and keep the peace in such strategic backwaters as Somalia, Bosnia, and Kosovo. Similar demands will only increase in a globalized world where local problems increasingly do not stay local and where “the most likely catastrophic threats to our homeland—for example, an American city poisoned or reduced to rubble by a terrorist attack—are more likely to emanate from failing states than from aggressor states.”³³

Furthermore, trends such as the youth bulge and urbanization in underdeveloped states, as well as the proliferation of more lethal weaponry, point to a future dominated by chaotic local insecurity and conflict rather than confrontations between the armies and navies of nation-states.³⁴ This future of persistent low-intensity conflict around the

the historical record reveals that the United States engages in ambiguous counterinsurgency and nationbuilding missions far more than it faces full-scale war



U.S. Marine (right) and Estonian soldier during clearing operation of enemy stronghold

U.S. Marine Corps (Freddy G. Cantu)

globe suggests that American interests are at risk not from rising peer competitors but from what has been called a “global security capacity deficit.”³⁵ As such, the U.S. military is more likely to be called upon to counter insurgencies, intervene in civil strife and humanitarian crises, rebuild nations, and wage unconventional types of warfare than it is to fight mirror-image armed forces. It will not “have the luxury of opting out [of these missions] because they do not conform to preferred notions of the American way of war.”³⁶

Both state and nonstate enemies will seek more asymmetric ways to challenge the United States and its allies. America’s conventional military superiority, which remains substantial, will drive many of them to the same conclusion: When they fight America conventionally, they lose horribly in days or weeks. When they fight unconventionally by employing guerrilla tactics, terrorism, and information operations, they have a better chance of success. It is unclear why even a powerful enemy would want to risk a costly head-to-head battlefield decision with the United States. As Secretary Gates said, “Put simply, our enemies and potential adversaries—including nation-states—have gone to school on us. They saw what America’s technology and firepower did to Saddam’s army in 1991 and again in 2003, and they’ve seen what [improvised explosive devices] are doing to the American military today.”³⁷

The developing strategic environment will find state and nonstate adversaries devising innovative strategies to counter American military power by exploiting widely available technology and weapons and integrating tactics from across the spectrum of conflict. Frank Hoffman terms these adversaries *hybrid threats*:

*Hybrid threats incorporate a full range of different modes of warfare, including conventional capabilities, irregular tactics and formations, terrorist acts including indiscriminate violence and coercion, and criminal disorder . . . coordinated within the main battlespace to achieve synergistic effects in the physical and psychological dimensions of conflict.*³⁸

The resulting conflicts will be protracted and hinge on the affected populations’ (foreign and American) perceptions of truth and legitimacy rather than the outcome of tactical engagements on the battlefield.

Interestingly, they sound similar to the insurgencies that the United States is currently combating, only more difficult. The learning curve is not going to get any easier.

Building the Army We Need

[A]part from the special forces community and some dissident colonels, for decades there has been no strong, deeply rooted constituency inside the Pentagon or elsewhere for institutionalizing our capabilities to wage asymmetric or irregular conflict—and to quickly meet the ever-changing needs of our forces engaged in these conflicts.

—Secretary of Defense Robert Gates³⁹

The Army today is out of balance, but not just because of a stressful operational tempo and certainly not because of a long-overdue increase in counterinsurgency training and education. Rather, it is because the Army, along with the broader defense establishment it is a part of, remains rooted in an organizational culture that continues to prioritize the requirements for a hypothetical future big war over the irregular conflicts the force is currently fighting.

It may not be possible to change the culture of the Nation’s defense institutions in the near term, but it is certainly possible to address the Army’s traditionally stilted priorities by strengthening the internal constituencies demanding attention for irregular warfare. For example, the effort to advise host-nation security forces in Iraq and Afghanistan would benefit from an Army Advisor Command that, among other functions, would be the advocate for all aspects of

tion and advising host-nation security forces, require specialized organization, training, and preparation for maximum effectiveness. The advisory effort in particular suffers under the current makeshift transition team system with inadequate manpower and training, and no doctrinal base to speak of. Given the importance of advisors to today’s wars and to America’s partners in the future, the Army must seriously consider developing a permanent Advisor Corps.

Development of an Advisor Corps and other irregular warfare-focused training, education, and career paths must occur against the backdrop of an overall increase in Army end-strength that should exceed the addition of 65,000 troops currently anticipated by 2012. Given the protracted, manpower-intensive nature of counterinsurgency and the need to prepare for other contingencies, the only way to achieve balance in the force is to make it bigger. An expanded Army would permit more dwell time between deployments for adequate training across the spectrum of conflict.

The U.S. Army has adapted to the demands of counterinsurgency over the past few years, but too painfully, fitfully, and slowly. As the Secretary of Defense has noted, “In Iraq, we’ve seen how an army that was basically a smaller version of the Cold War force can over time become an effective instrument of counterinsurgency. But that came at a frightful human, financial, and political cost.”⁴⁰ While individual Soldiers and units have much to be proud of, the institutional Army’s record of counterinsurgency adaptation to the current conflicts leaves much to be desired. Thousands of lives were

the Army’s current structures to preserve the lessons of irregular warfare are unable to affect the larger institutional mindset in any meaningful way

the advisor mission within the institutional Army. The Army’s current structures to preserve the lessons of irregular warfare, such as the U.S. Army/Marine Corps Counterinsurgency Center in the Combined Arms Center at Fort Leavenworth, are under-resourced and thus unable to affect the larger institutional mindset in any meaningful way.

The Army also needs to recognize that key functions in counterinsurgency and other irregular operations, such as civil reconstruc-

lost while Soldiers and their leaders struggled to learn how to deal with an unfamiliar situation. At least some of those losses might have been avoided had the Army and defense community at large learned from rather than discounted past lessons and experiences.

The U.S. military’s role in irregular warfare cannot be wished or willed away, and the Army has a responsibility to prepare itself to fulfill that role as effectively as possible. It is irresponsible to assume that current and

future foes will play to America's strengths by fighting conventionally rather than through proven, cost-effective, insurgent-like asymmetric strategies. It is irresponsible to think that the United States will always have a conscious choice of whom it fights and how—for the enemy always gets a vote. And it is irresponsible to devalue irregular warfare adaptations needed on the battlefield today in favor of other capabilities that might be useful in a hypothetical conflict later.

In the profession of arms—whether the wars be large or small, of our choosing or not—there is still no substitute for victory. **JFQ**

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Let's Build an Army to Win *All* Wars

POINT > COUNTERPOINT

By G I A N P . G E N T I L E

The U.S. Army officer corps has not seriously debated the content of the many doctrinal field manuals (FM) published over the past 2 years (for example, FM 3–24, *Counterinsurgency*, FM 3–0, *Operations*, and FM 3–07, *Stability Operations and Support Operations*). Though these manuals have been successfully pushed through the bureaucratic lines of the Army's senior leadership, few other officers raised questions about the wisdom of employing American military power to build nations where none exist or where an American military presence is not wanted. Instead, the Army has been steamrolled by a process that proposes its use as an instrument of nationbuilding in the most unstable parts of the world. Nationbuilding, rather than fighting, has become the core function of the U.S. Army.

The Army under the Petraeus Doctrine “is entering into an era in which armed conflict will be protracted, ambiguous, and continuous—with the application of force becoming a lesser part of the soldier's repertoire.”¹ The implication of this doctrine is that the Army should be transformed into a light infantry-based constabulary force designed to police the world's endless numbers of unstable areas. The concept rests on the assumption that the much-

touted “surge” in Iraq was a successful feat of arms, an assertion that despite the claims of punditry supporters in the press has yet to be proven. The war in Iraq is not yet over.

Fighting Is Not Priority

The Army's new and most important doctrinal manuals confirm that fighting as a core competency has been eclipsed in importance and primacy by the function of nationbuilding. This does not mean that in these manuals the ability of the Army to fight is not necessary, only that it is a subordinate function to the capability to do such things as establish local governance, conduct information operations, build economies and service infrastructure, and provide security, all of which are elements of building a nation. Yet by placing nationbuilding as its core competency over fighting, our Army is beginning to lose its way, and we court strategic peril as a result.

Juxtaposing an older version of the Army's operational doctrine with its current doctrine can shed light on this problem. In providing a definition for what commanders should strive for in the application of operational art, the Army's 1986 version of FM 100–5, *Operations*, noted that “[o]perational art thus involves fundamental decisions about when and where to fight and whether to accept

or decline battle.” The recently released current version of FM 3–0 states that, for the commander, operational art involves “knowing when and if simultaneous combinations [of offense, defense, and stability operations] are appropriate and feasible.”

The differences between these two statements are striking. They illustrate the gulf that separates the organizing principles of their respective doctrine. In the 1986 version of FM 100–5, the organizing principle is to *fight*, pure and simple. Yet in the current version of FM 3–0, the organizing principle is not necessarily to fight (although fighting would clearly be a part of offense, defense, and possibly even in stability operations) but to *combine* the different types of operations. As a concept for higher level Army planners, the notion of “combining” different types of operations in the field to accomplish objectives might be satisfactory. However, as an organizing principle for the Army writ large, how does the notion of combining different types of operations guide the force? When I was a second lieutenant in Germany in 1987, I read FM 100–5. When I read it, if nothing

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M1A1 Main Battle Tanks engage targets during Exercise Bright Star, Egypt

U.S. Army (Jose M. Hernandez)

else I understood how my tank platoon fit into the larger picture of Army operations. But today, with the new doctrine, that singular focus is gone and replaced by a fuzzy notion of combining different types of operations. If a rifle company commander sits down and reads the Army's high-profile doctrinal manuals, he learns to be an occupier, a policeman, and an administrator—but not a fighter.

In the Army's current operational field manual, there are no maps, no arrows, and no symbols representing friend and foe, only a loose collection of blocks, squares, and figures representing fuzzy conceptual notions of different types of operations and suggestions of how to combine them. This observation may seem simplistic and trivial to some, but it does point to the larger problem of the Army's shift away from fighting as its organizing principle. The key assumption that underpins the Petraeus Doctrine is that the threat most likely to face American ground forces will be little more robust and capable than a lightly armed insurgent on the model seen in Iraq.

The result is that the Army has constructed a concept of the future security environment that precludes fighting as the Army's core function and has instead replaced it with nationbuilding. This action is not simply dangerous; it potentially neglects key

aspects of U.S. national security. Worst of all, this approach ignores the requirement to objectively and accurately answer the questions that must drive thinking, organizing, and modernizing inside the Army: What is the strategic purpose for which American ground combat forces will be required to deploy and fight? Whom and where do they fight? How should they fight? What are the joint operational concepts driving change in the way American ground forces fight?

on the Western model where they do not currently exist in the proverbial Third World is Nagl's concept for reorienting the long-term strategic mission of American ground forces.

The real question, in view of America's ongoing military experience in Iraq and Afghanistan, is whether the Army should be prepared to conduct stability operations, nationbuilding, counterinsurgency, and related operations for more than very brief periods. Experience to date both indicates the

if a rifle company commander reads the Army's high-profile doctrinal manuals, he learns to be an occupier, a policeman, and an administrator—but not a fighter

The Army's senior officer in charge of writing its doctrine, Lieutenant General William Caldwell, recently noted that "the future is not one of major battles and engagements fought by armies on battlefields devoid of population; instead, the course of conflict will be decided by forces operating among the people of the world."² The newly released Army doctrine for stability operations, written under General Caldwell's supervision, embraces missions and tasks that can only be described as building a nation.

Retired Army lieutenant colonel John Nagl, author of *Learning to Eat Soup with a Knife*, is so cocksure of the efficacy of Army combat power that he believes it will have the ability not only to dominate land warfare in general but also to "change entire societies." Reminiscent of Thomas Barnett's Pentagon blueprint argument of building new societies

limitations of American military capability to reshape other people's societies and governments and points to the limits of American military and economic resources in the conduct of these operations.

Currently, the Army is directed by Deputy Secretary of Defense Gordon England's Department of Defense (DOD) Directive 3000.05, "Military Support for Stability, Security, Transition, and Reconstruction Operations," which places stability operations on an equal level with offense and defense. Naturally and rightly we will comply. But the directive does at least present the appearance of a coda for the propagated notions of success in Iraq and Afghanistan. This directive, again viewed as coda, also reinforces the perception in some quarters of the Army that the advocates of the Petraeus Doctrine are a small cluster of true believers rather than military intellectuals ready to debate the issues in an objective and open forum.³

Granted, stability missions will come from the President and Secretary of Defense, and we must be prepared to execute, but in a world of limited resources, both strategy and military policy dictate that hard choices must be made in terms of how we train and organize. The choice should be to build an army on the organizing principle of fighting. From there should flow the ability to step in other directions to perform such missions as nationbuilding, as well as irregular and counterinsurgency warfare. Instead, we have our organizing principles inverted.

The Army officer corps needs to explore this issue beyond the narrow bureaucratic lines of its doctrinal production process and external influences. It needs to have a debate concern-

GEN Petraeus discusses surge with Iraqi army general



U.S. Army (Lorie Jewell)

ing future missions and structures on the scale of the debates inside the Army between 1976 and 1982. During those years, there were at least 110 articles published in *Military Review* that fundamentally questioned the Service's operational doctrine that became known as Active Defense. This cutting and wide-ranging criticism did not just hover around the edges of the Active Defense doctrine but cut right to its core by challenging its assumptions, historical premises, and theories. One emblematic article from *Military Review* criticizing the new doctrine of the time argued that the U.S. Army "is currently pursuing a general warfare doctrine which is bankrupt—it will not work in practice." The value of this widespread criticism of the Active Defense doctrine was that it spurred a reevaluation of the doctrine that ultimately produced the 1986 version of FM 100-5, known as AirLand Battle. Aside from a handful of critical articles by firebrand writers such as Ralph Peters and Edward Luttwak, not much has been written that fundamentally questions current Army doctrine and where it is going. It is time to start.⁴

Mired in Dogma

A certain group of defense thinkers dominating the Army's current intellectual climate appears to be advocating short-term expediencies rather than longer term strategic goals. They have published and spoken widely over the past 2 years and have been given a leading role in crafting current doctrine. From them one might infer that the Army has reached a synthesis in a dialectical process that has produced such manuals as FM 3-24, FM 3-0, and FM 3-07. And for these thinkers, there is no reason to go back into the dialectic; there is no reason to inject an antithesis into the process because we are at intellectual endstate. Nagl has argued as much in a recent opinion article where he stated that the Army, after 5 long and difficult years of "learning" in Iraq, has finally reached a "consensus" on how to do counterinsurgency.⁵

Nagl fabricates this notion of consensus and synthesis in a recent review essay about historian Brian Linn's important new intellectual history of the Army, *The Echo of Battle*. In the review, Nagl takes Linn's taxonomy of Army thinking over the years of Heroes, Managers, and Guardians and laments that the Army has failed to appreciate the need to be able to fight irregular and counterinsurgency warfare, and that it has cost the Nation greatly. But he ends the review on a positive note, suggesting that perhaps the Army has finally worked itself through this dialectic and reached a synthesis of nationbuilding. How else can one square Nagl's breathtaking statement of the Army being able to "change entire societies" if he did not see the intellectual dialectic within the Army coming to fruition and reaching its endstate?⁶

aside from a handful of critical articles by firebrand writers, not much has been written that fundamentally questions current Army doctrine and where it is going

17th Fires Brigade Soldiers fire M198 155mm howitzer during combined live fire exercise



U.S. Army (Lucas T. Swihart)

The Army's problem is more than just an academic debate. The intellectual climate inside the Service bears an uncomfortable similarity to the climate inside the British and French armies of the interwar period when doctrinal thinking conformed to preconceived ideas that sprang from political expediency and misinterpreted military experience. In most troubling ways, the thinking of those who would commit the Nation's ground forces to future missions on the Iraq model is producing a stultifying effect on the Army to the point where officers are mired in yet another form of military dogmatism, unable to think objectively about the present or the future of U.S. national security.

FM 3-24 (along with FM 3-0 and FM 3-07, which derive their organizing principles from it) has transfixed the Army. The manual has become the Army's Svengali. Rather than simple Service doctrine for how to do counterinsurgency, it has morphed into a Weltanschauung of sorts, dictating how the Army should perceive and respond to security problems around the world. The manual dictates that any instability problem producing an insurgency must be dealt with by establishing government legitimacy within that unstable country.⁷ To establish government stability, a range of other things must happen as well: security for the population, building economies, creating essential services infrastructure, training local security forces, and so forth. In short, FM 3-24 has become code for nationbuilding.

From that basic concept is derived a standard operational and tactical approach: place

large numbers of American combat Soldiers on the ground, disperse them throughout the population to protect them, and from there security will be established and the process of nationbuilding can go forward. This concept dominates our Army. The pages of *Military Review*, which reflects the observations and experiences of the field Army fighting in Afghanistan and Iraq, show the dogmatism that the Service has come to. Now when a problem of insurgency presents itself, our only option is to send in combat brigades to "protect the people."

Former combat brigade commander in Afghanistan Colonel Michael Coss, who recently wrote in *Military Review* about his experience conducting counterinsurgency operations there, betrays the deep-seated dogmatism on counterinsurgency that has infiltrated the Army. When discussing the importance of the people in a counterinsurgency operation, Coss notes that the population is "the center of gravity in any insurgency."⁸ Why must this always be the case? From a theoretical and historical standpoint, it certainly does not have to be. Moreover, from a creative operational standpoint, when trying to discover what a center of gravity might be, it does not have to be—and should not always be—the people. If it is, then we have already predetermined what our response will be: many boots on the ground marching to the exact beats of FM3-24, FM 3-0, FM 3-07, and their collective organizing principle of nationbuilding. Carl von Clausewitz teaches that a center of gravity is something to be discovered. The Army's new way of thinking has in effect

done the discovering for us, and we are left to blindly obey.

Former Marine officer and decorated Iraq combat veteran Nathaniel Fick, who currently is an analyst at a think tank in Washington, DC, noted in an opinion article that "every aspect of sound counterinsurgency strategy revolves around bolstering the government's legitimacy. When ordinary people lose their faith in their government, then they also lose faith in the foreigners who prop it up."⁹ These two sentences are clear examples of how a certain theory of counterinsurgency warfare—developed in the 1950s and 1960s by such thinkers as the French army officer David Galula and British officer Sir Robert Thompson and based on government legitimacy and population security—has become the oracle for our current intellectual climate on military and foreign policy.¹⁰ Why do we privilege this theory over others? Do we really believe that our world is closer to the counter-Maoist worldview of Galula and Thompson than perhaps to the imperial worldview of the British army officer C.E. Callwell of the late 19th century? We have detached this historically contingent theoretical approach to counterinsurgency from its contextual moorings and plotted it in the present as an action template for the future. We like to imagine that we think historically, but we have become the purveyors of ahistoricism.

So our current counterinsurgency, operational, and stability doctrines have moved well beyond simple Army doctrine and become the organizing principle for the Army and, more subtly, the shaper of an American foreign policy premised on intervention into unstable areas



LTG Odierno meets with Ninewa Province governor and local sheikhs in Tal Afar

U.S. Army (Curt Cashour)



Army Corps of Engineers district commander tours new sewage pumping station in Baghdad

U.S. Army (Brian D. Lehnhardt)

around the world with American ground forces as the primary engine for bringing about stability. The way ahead in Afghanistan seems clear, at least as the Army's intellectual climate dictates: existential nationbuilding. Another Army officer who has recently returned from battalion-level command in Afghanistan, Colonel Christopher Kolenda, tells us in a recently published opinion piece that the "way to win" in Afghanistan is to essentially build a new Afghanistan nation.¹¹

However, sometimes the best approach to dealing with a problem of insurgency is not necessarily a focus on the people per se, but on the insurgent enemy. This does not mean, as many uninformed critics like to assert, that the enemy-centric approach means scorching the earth of a country by killing innocent civilians to get at the insurgents. Yet that is the usual criticism when we consider problems of insurgencies in ways other than protraction and focusing on populations, both of which demand the substantial involvement of American combat troops. Thus, when problems of insurgencies and other sources of instability present themselves to American military planners, the only option seemingly available is large numbers of American combat boots on the ground protect-

command, but it is not firing its rockets, and one can only conclude that those core competencies have atrophied.

Army combat brigades preparing for deployments to Iraq and Afghanistan at Fort Irwin, California, and Fort Polk, Louisiana, only prepare for counterinsurgency operations. Instead of spending time at battalion and brigade levels training to fight a like enemy, they instead focus on how to rebuild villages and talk in culturally sensitive ways to local nationals. Is this kind of training important for combat outfits preparing to deploy to real world counterinsurgency operations? Of course it is—and that is what they should be doing. But the Army should acknowledge what General Casey has been telling us: that we are out of balance and at some point need to get back into shape to conduct operations at the higher end of the conflict spectrum.

Arguing for rebuilding the Army's capacity for conventional operations does not mean taking the Service back to 1986 in order to recreate the old Soviet Union so we can prepare to fight World War II all over again in the Fulda Gap. Such accusations have become the standard—and wrongheaded—critique that purveyors

necessarily transferrable to another. One may be able to argue that combat platoons and companies can easily shift from counterinsurgency to conventional fighting. However, that same argument does not hold true for higher level organizations such as divisions and corps, which for the last 6 years have been conducting node-based operations. When was the last time an Army combat brigade or higher level organization at either of the training centers or in actual combat conducted a sustained ground campaign against an enemy organized along military lines and fights?¹⁵

History shows that when states focus their armies on doing nothing but counterinsurgency and world constabulary missions to the exclusion of preparing for conventional warfare, strategic failure can result.

In summer 2006 in southern Lebanon, the Israeli army suffered a significant battlefield defeat at the hands of Hizballah, who fought with conventional tactics centered on small infantry squads using machineguns, mortars, and antitank missiles. Israeli scholar Avi Kober and Army historian Matt Matthews have shown that the Israeli army's conventional fighting skills had atrophied due to many years of doing almost nothing but counterinsurgency operations in the Palestinian territories.¹⁶

The British army after World War I chose to mostly forget about fighting conventional wars and instead concentrated on building an imperial constabulary army to police its empire. In 1940, however, as the German army raced across France to the English Channel, the British army alongside the French was defeated by the Germans, who had spent their interwar years preparing for large-scale battles. The British barely missed strategic catastrophe by escaping back across the English Channel to England through the French port of Dunkirk.

And the future of war is not only counterinsurgencies such as Iraq and Afghanistan. One can imagine a range of possibilities that cover the full spectrum of war and conflict. A movement to gain contact with Iranian forces inside Iran by an American ground combat brigade seems plausible. A range of possibilities exist in Korea, from a collapse of North Korea requiring the South's occupation with American support to a higher level of intensity with some fighting as the North collapses, possibly drawing in American conventional combat forces. These are just two examples of possible scenarios where the Army will need to be able to fight on multiple levels of the conflict spectrum.

The Russian army attack into the break-away Georgian province of South Ossetia

when trying to discover what a center of gravity might be, it does not have to be—and should not always be—the people

ing the people from the insurgents. This is why the Army has become dogmatic.

Atrophied Fighting Skills

Not only has the Service's intellectual climate become rigid, but also its operational capability to conduct high-intensity fighting operations other than counterinsurgency has atrophied over the past 6 years. Consider an important white paper written by three Army colonels, all former combat brigade commanders in Iraq, to Army Chief of Staff General George Casey. In the paper, entitled "The King and I," these colonels rightly lament the atrophied capabilities of the Army's artillery branch to perform its basic warfighting function: firing its guns en masse against enemy targets. As the authors point out, 6-plus years of counterinsurgency operations have forced artillery units to carry out missions in Iraq and Afghanistan other than their core function.¹² For example, Army Lieutenant Colonel Paul Yingling's rocket artillery battalion is currently performing detainee operations in Iraq. Granted, it is doing critical missions for the

of counterinsurgency dogma like to throw at anybody who argues for a renewed focus on conventional capabilities. The Army does need to transform from its antiquated Cold War structure toward one that can deal with the security challenges of the new millennium and one focused primarily on fighting as its core competency.¹³

Many counterinsurgency experts claim that the Army will always be able to do higher intensity combat operations because that is, as they say, what the Service has always been good at. For these folks, since the Army has always been good at conventional operations, it is axiomatic that it always will be—that conventional warfighting capabilities will remain a constant. Historian and retired Army colonel Pete Mansoor, for example, accepts the premise that the Army's conventional capabilities remain "preeminent" in the world. He then argues for a strong focus on counterinsurgency and irregular types of operations.¹⁴ Combat experience in Iraq and Afghanistan is often cited to argue that the Army, even though it is focused heavily on counterinsurgency, can easily step back into the conventional warfighting mode. Yet combat experience in one kind of war is not

should ring like a fire alarm to those who believe the future of war and conflict will only be “decided by forces operating among the people of the world” and not by armies fighting “major battles and engagements.”¹⁷ Images of Georgian infantry moving under fire and columns of Russian tanks on the attack show that the days of like armies fighting each other on battlefields are far from over.

Getting the Past Right

The U.S. Army must do what it takes to win the wars in Iraq and Afghanistan. It must also be prepared to conduct stability operations and other forms of irregular warfare. But in looking toward the future with a close eye on events in Georgia, the recent past of Israel in southern Lebanon, and history, the Army must soon refocus itself toward conventional warfighting skills with the knowledge that, if called on, it can more easily shift to nationbuilding and counterinsurgency as it has done in Iraq. The Army's conduct of counterinsurgency and nationbuilding in Iraq, beginning in the spring of 2003, shows this to be the case.

The Army's lightning advance to Baghdad in spring 2003 in only a few weeks happened because it was a conventionally minded army trained for fighting. If it had focused the majority of its time and resources prior to the Iraq War on counterinsurgency and nationbuilding, it is reasonable to assume that the march to Baghdad would have been much more costly in American lives and

treasure and could have turned out much differently.

An Army that was trained to fight (potentially against the Soviet Union) in the 1980s, and retained in the 1990s, easily and quickly transitioned to counterinsurgency and nationbuilding operations in Iraq in summer 2003. This goes against current thinking by many DOD officials who claim that because the Service did not prepare for counterinsurgency prior to the Iraq War, it had to be rescued by the surge of troops under General Petraeus in February 2007.

Nagl argues that the Army's focus on winning only the “short campaigns” to topple Saddam resulted in a triumph “without victory as stubborn insurgents stymied America's conventional military power.” For Nagl, because the Army had not prepared for counterinsurgency operations prior to Iraq, it fumbled at it for the first 4 years until the 2007 surge.

This is not true, at least according to the recently released Army history of the Iraq War, *On Point II*. In fact, according to this history, the Army quickly transitioned out of the conventional fighting mode into the successful conduct of “full-spectrum” counterinsurgency and nationbuilding operations by the end of 2003. Only about 6 months into its counterinsurgency campaign, despite the fact that it did not have a formalized counterinsurgency doctrine, the Army across the board was carrying out “best practices”

in counterinsurgency operations. But even good counterinsurgency tactics, practiced by proficient combat outfits, cannot compensate for flawed strategies and policies.¹⁸

The same argument can be made for the Army's performance in Vietnam. Contrary to what has become conventional historical thinking, the Army did not lose the Vietnam War because it did not have a counterinsurgency doctrine prior to the war or because it did not understand how to do counterinsurgency.¹⁹ Army General William Westmoreland understood classic counterinsurgency theory in 1965 and practiced it with a reasonable strategy to maintain the efficacy of the South Vietnamese government.

Westmoreland was not, as his critics like to argue, trying to fight World War II all over again in the jungles of Vietnam. Current scholarship supports this claim.²⁰ The Army and the Nation lost the war for reasons having less to do with tactics than with the will, perseverance, cohesion, indigenous support, and sheer determination of the other side, coupled with the absence of any of those things on the American side.

combat experience in Iraq and Afghanistan is often cited to argue that the Army can easily step back into the conventional warfighting mode

Man displays inked finger after voting in Iraq's first official democratic elections at polling site secured by Iraqi army, December 2005



U.S. Army (Ronald R. Gaete)

Yet the counterinsurgency and stability operations experts in the Army continue to bludgeon us with the historical “lessons learned” cudgel. They tell us that we failed in Iraq from 2003 until 2007 (but were rescued by the surge in 2007) because we did not learn the lessons of the past that provide clear templates for victory in counterinsurgencies and irregular war. In a recent interview on National Public Radio, General Caldwell told the story of the Army conducting military occupations over many years and failing to learn and retain lessons each time. His implicit point was that if the Army had paid attention to these lessons learned and formalized them into doctrine, the first 3 years of the war in Iraq might have turned out differently.²¹

And that same “lessons learned” cudgel is used to beat the Army down the continued path of focusing itself primarily on stability operations, counterinsurgency, and nationbuilding. Since

synthesis and consensus have been achieved in the mind of the true believers, any questioning and probing of it is met with stiff resistance and outright rejection. In this sense, anti-intellectualism is alive and well in parts of the Army and the American defense establishment.

Strategy Is about Choices

Good strategy and sound military policy are premised on making choices and establishing priorities. Stephen Biddle and Jeffrey Friedman point that simple fact out in an important essay that analyzes the 2006 Israeli-Lebanon war.²² They argue that the war will be a critical case study for the U.S. Army in how it organizes itself for the future while fighting the ongoing wars in Iraq and Afghanistan. For Biddle and Friedman, hard choices must be made for a future security environment that they argue will be neither simply one of irregular wars against a stealthy guerrilla enemy fought “amongst” the people, nor, as they rightly state, one of a Cold War reincarnated, involving only higher end conventional warfare.

So choice is an important quality in strategy and in military and foreign policies. The choice for American foreign policy has already been made for the country: American military intervention in unstable portions of the world. This is a supreme problem for the American polity since the issue has not been debated and decided with involvement by the American people and their elected representatives in Congress.²³

And down one level within the Army, it seems that for now choices have already been made for us, too. We are organizing ourselves around the principle of nationbuilding rather than fighting. For defense thinkers such as Nagl, that principle has turned into a synthetic consensus. To repeat, how else can one explain his most profound and deeply troubling statement that the Army, in the future, will have the capability to “change entire societies”? In this sense, the caricature of Nagl as a “crusader” seems correct.²⁴

The world has seen firsthand what happens when American combat power tries to change societies from the barrel of a gun. Such arguments—elegant when conducted in doctrine, opinion articles, and academic journals—lose their prettiness and instead become mired in the blood and guts of the reality of mean streets and roads in foreign lands. If the U.S. Army is directed to ride down those roads and streets by the President, then of course we will go and do our damndest to win. But we should

be able to fight when we get there. If not, then most of the blood and guts will be ours. **JFQ**

NOTES

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¹⁴ Peter R. Mansoor, *Baghdad at Sunrise: A Brigade Commander’s War in Iraq* (New Haven: Yale University Press, 2008).

¹⁵ To see how Army combat brigades only train on counterinsurgency at the training centers, see Dennis Steele, “NTC: Between Hollywood and Hell,” *Army Magazine* (July 2008).

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¹⁸ Donald P. Wright and Timothy R. Reese, *On Point II: Transition to the New Campaign: The United States Army in Operation Iraqi Freedom, May 2003–January 2005* (Fort Leavenworth, KS: Combat Studies Institute Press, 2008).

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Hybrid Warfare and Challenges

By FRANK G. HOFFMAN



Library of Congress (Brady-Handy Photograph Collection)



Matthias Kabel

Above: Corinthian helmet, circa 500 BCE

Left: Colonel John S. Mosby, C.S.A., "The Gray Ghost"

The U.S. military faces an era of enormous complexity. This complexity has been extended by globalization, the proliferation of advanced technology, violent transnational extremists, and resurgent powers. America's vaunted military might stand atop all others but is tested in many ways. Trying to understand the possible perturbations the future poses to our interests is a daunting challenge. But, as usual, a familiarity with history is our best aid to interpretation. In particular, that great and timeless illuminator of conflict, chance, and human nature—Thucydides—is as relevant and revealing as ever.

In his classic history, Thucydides detailed the savage 27-year conflict between Sparta and Athens. Sparta was the overwhelming land power of its day, and its hoplites were drilled to perfection. The Athenians, led by Pericles, were the supreme maritime power, supported by a walled capital, a fleet of powerful triremes, and tributary allies. The Spartan leader, Archidamius, warned his kinsmen about Athens' relative power, but the Spartans and their supporters would not heed their king. In 431 BCE, the Spartans marched through Attica and ravaged the Athenian country estates and surrounding farms. They encamped and awaited the Athenian heralds

and army for what they hoped would be a decisive battle and a short war.¹

The scarlet-clad Spartans learned the first lesson of military history—*the enemy gets a vote*. The Athenians elected to remain behind their walls and fight a protracted campaign that played to their strengths and worked against their enemies. Thucydides' ponderous tome on the carnage of the Peloponnesian War is an extended history of the operational adaptation of each side as they strove to gain a sustainable advantage over their enemy. These key lessons are, as he intended, a valuable "possession for all time."

In the midst of an ongoing inter-Service roles and missions review, and an upcoming defense review, these lessons need to be underlined. As we begin to debate the scale and shape of the Armed Forces, an acute appreciation of history's hard-earned lessons will remain useful. Tomorrow's enemies will still get a vote, and they will remain as cunning and elusive as today's foes. They may be more lethal and more implacable. We should plan accordingly.

One should normally eschew simplistic metanarratives, especially in dynamic and nonlinear times. However, the evolving character of conflict that we currently face is best characterized by *convergence*. This includes the convergence of the physical and psychological, the kinetic and nonkinetic, and combatants and noncombatants. So, too, we see the convergence of military force and the interagency community, of states and nonstate actors, and of the capabilities they are armed with. Of greatest relevance are the converging modes of war. What once might have been distinct operational types or categorizations among terrorism and conventional, criminal, and irregular warfare have less utility today.

Current Strategic Thinking

The 2005 National Defense Strategy (NDS) was noteworthy for its expanded understanding of modern threats. Instead of the his-

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torical emphasis on conventional state-based threats, the strategy defined a broadening range of challenges including traditional, irregular, terrorist, and disruptive threats. The strategy outlined the relative probability of these threats and acknowledged America's increased vulnerability to less conventional methods of conflict. The strategy even noted that the Department of Defense (DOD) was "over invested" in the traditional mode of warfare and needed to shift resources and attention to other challengers.

While civil and intrastate conflicts have always had a higher frequency, their strategic impact and operational effects had little impact on Western military forces, and especially U.S. forces, which focused on the significantly more challenging nature of state-based threats and high-intensity conventional warfighting. This focus is partly responsible for America's overwhelming military superiority today, measured in terms of conventional capability and its ability to project power globally. This investment priority and American force capabilities will have to change, however, as new environmental conditions influence both the frequency and character of conflict.

Subsequent to the strategy's articulation, a number of U.S. and foreign analysts complimented DOD strategists for moving beyond a myopic preoccupation with conventional war. But these analysts have also identified an increased blurring of war forms, rather than the conveniently distinct categorizations found in the NDS. Yet the strategy itself did suggest that the most complex challengers of the future could seek synergies from the simultaneous application of multiple modes of war. The NDS explicitly admitted that the challenger categories could and would overlap and that "recent experience indicates . . . the most dangerous circumstances arise when we face a complex of challenges. Finally, in the future, the most capable opponents may seek to combine truly disruptive capacity with traditional, irregular, or catastrophic forms of warfare."²²

This matches the views of many military analysts, who have suggested that future conflict will be *multi-modal* or *multi-variant* rather than a simple black or white characterization of one form of warfare. Thus, many analysts are calling for greater attention to more blurring and blending of war forms in combinations

of increasing frequency and lethality. This construct is most frequently described as "hybrid warfare," in which the adversary will most likely present unique combinational or *hybrid* threats specifically targeting U.S. vulnerabilities. Instead of separate challengers with fundamentally different approaches (conventional, irregular, or terrorist), we can expect to face competitors who will employ *all* forms of war and tactics, perhaps simultaneously. Criminal activity may also be considered part of this problem, as it either further destabilizes local government or abets the insurgent or irregular warrior by providing resources. This could involve smuggling, narcoterrorism, illicit transfers of advanced munitions or weapons, or the exploitation of urban gang networks.

A number of analysts have highlighted this blurring of lines between modes of war. They suggest that our greatest challenge in the future will not come from a state that selects one approach but from states or groups that select from the whole menu of tactics and technologies and blend them in innovative ways to meet their own strategic culture, geography, and aims. As Michael Evans of the Australian Defence Academy wrote well before the last Quadrennial Defense Review, "The possibility of continuous sporadic armed conflict, its engagements blurred together in time and

the 2005 National Defense Strategy was noteworthy for its expanded understanding of modern threats

U.S. Army (Curtis G. Hargrave)



101st Airborne Division Soldiers fire missile at building in Mosul, Iraq, in which Uday and Qusay Hussein barricaded themselves, July 2003

space, waged on several levels by a large array of national and sub-national forces, means that war is likely to transcend neat divisions into distinct categories.”³

Numerous scholars are now acknowledging the mixing likely in future conflicts. Colin Gray has admitted the one feature that “we can predict with confidence is that there is going to be a blurring, a further blurring, of warfare categories.”⁴ British and Australian officers have moved ahead and begun the hard work of drawing out implications and the desired countercapabilities required to effectively operate against hybrid threats. The British have gone past American doctrine writers and already incorporated hybrid threats within their construct for irregular war.⁵ Australian military analysts remain on the front lines of inquiry in this area.⁶

Theorists responsible for some of the most cutting edge thinking in alternative modes of war and associated organizational implications continue to explore the blurring of conflict types. John Arquilla, an expert in irregular warfare, has concluded that “[n]etworks have even shown a capacity to wage war toe-to-toe against nation-states—with some success. . . . The range of choices available to networks thus covers an entire spectrum of conflict, posing the prospect of a significant blurring of the lines between insurgency, terror, and war.”⁷

Some research has been done on civil wars as hybrid conflicts. Other research focuses on the nature of the societies involved. But hybrid wars are much more than just conflicts between states and other armed groups. It is the application of the various forms of conflict that best distinguishes hybrid threats or conflicts. This is especially true since hybrid wars can be conducted by both states and a variety of nonstate actors. Hybrid threats incorporate a full range of modes of warfare, including conventional capabilities, irregular tactics and formations, terrorist acts that include indiscriminate violence and coercion, and criminal disorder. These multi-modal activities can be conducted by separate units, or even by the same unit, but are generally operationally and tactically directed and coordinated within the main battlespace to achieve synergistic effects in the physical and psychological dimensions of conflict. The effects can be gained at all levels of war. Thus, the compression of the levels of war is complicated by a simultaneous convergence of modes. The novelty of this combination and the innovative adaptations of existing systems

by the hybrid threat is a further complexity. As one insightful student of war noted:

*Hybrid forces can effectively incorporate technologically advanced systems into their force structure and strategy, and use these systems in ways that are beyond the intended employment parameters. Operationally, hybrid military forces are superior to Western forces within their limited operational spectrum.*⁸

Hybrid wars are not new, but they are different. In this kind of warfare, forces become blurred into the same force or are applied in the same battlespace. The combination of irregular and conventional force capabilities, either operationally or tactically integrated, is quite challenging, but historically it is not necessarily a unique phenomenon.⁹ The British faced a hybrid threat at the turn of the last century when the Boers employed Mauser rifles and

*the compression of the levels
of war is complicated by a
simultaneous convergence of
modes*

Krupp field guns and outranged their red-clad adversary. Ultimately, the British adapted and ran down the Boer commandos. The fierce defense of Grozny by the Chechens is another potential hybrid case study. But both were bloody and protracted conflicts that arguably required more military resources and greater combat capabilities than classical counterinsurgencies and Field Manual 3–24, *Counterinsurgency*, would suggest.

Compound Wars

Historians have noted that many if not most wars are characterized by both regular and irregular operations. When a significant degree of strategic coordination between separate regular and irregular forces in conflicts occurs, they can be considered “compound wars.” Compound wars are those major wars that had significant regular and irregular components fighting simultaneously under unified direction.¹⁰ The complementary effects of compound warfare are generated by its ability to exploit the advantages of each kind of force and increase the nature of the threat posed by each kind of force. The irregular force attacks weak areas, compelling a conventional opponent to disperse his security forces. The conventional

force generally induces the adversary to concentrate for defense or to achieve critical mass for decisive offensive operations.

One can see this in the American Revolution, when George Washington’s more conventional troops stood as a force in being for much of the war, while the South Carolina campaign was characterized by militia and some irregular combat.¹¹ The Napoleonic era is frequently viewed in terms of its massive armies marching back and forth across Europe. But the French invasion of Spain turned into a quagmire, with British regulars contesting Napoleon’s control of the major cities, while the Spanish guerrillas successfully harassed his lines of communication. Here again, strategic coordination was achieved, but overall in different battlespaces.¹² Likewise, the American Civil War is framed by famous battles at Chancellorsville, Gettysburg, Vicksburg, and Antietam. Yet partisan warfare and famous units like John Mosby’s 43rd Virginia Cavalry provided less conventional capabilities as an economy of force operation.¹³ T.E. Lawrence’s role as an advisor to the Arab revolt against the Ottomans is another classic case of compound war, which materially assisted General Edmund Allenby’s thrusts with the British Expeditionary Force against Jerusalem and Damascus. But here again, Lawrence’s raiders did not fight alongside the British; they were strategically directed by the British and supplied with advisors, arms, and gold only.¹⁴

Vietnam is another classic case of the strategic synergy created by compound wars, posing the irregular tactics of the Viet Cong with the more conventional capabilities of the North Vietnamese army.¹⁵ The ambiguity between conventional and unconventional approaches vexed military planners for several years. Even long afterward, Americans debated what kind of war they actually fought and lost.¹⁶

Hybrid Wars

As difficult as compound wars have been, the operational fusion of conventional and irregular capabilities in hybrid conflicts may be even more complicated. Compound wars offered synergy and combinations at the strategic level, but not the complexity, fusion, and simultaneity we anticipate at the operational and even tactical levels in wars where one or both sides is blending and fusing the full range of methods and modes of conflict into the battlespace. Irregular forces in cases of compound wars operated largely as a distraction or economy of force measure in a separate theater or adjacent operating area includ-

ing the rear echelon. Because it is based on operationally separate forces, the compound concept did not capture the merger or blurring modes of war identified in past case studies such as Hizballah in the second Lebanon war of 2006 or future projections.

Thus, the future does not portend a suite of distinct challengers into separate boxes of a matrix chart. Traditional conflict will still pose the most dangerous form of human conflict, especially in scale. With increasing probability, however, we will face adversaries who blur and blend the different methods or modes of warfare. The most distinctive change in the character of modern war is the blurred or blended nature of combat. We do not face a widening number of distinct challenges but their *convergence* into hybrid wars.

These hybrid wars blend the lethality of state conflict with the fanatical and protracted fervor of irregular warfare. In such conflicts, future adversaries (states, state-sponsored groups, or self-funded actors) will exploit access to modern military capabilities, including encrypted command systems, man-portable air-to-surface missiles, and other modern lethal systems, as well as promote protracted insurgencies that employ ambushes, improvised explosive devices (IEDs), and coercive assassinations. This could include states blending high-tech capabilities such as antisatellite weapons with terrorism and cyber warfare directed against financial targets.

Hybrid challenges are not limited to non-state actors. States can shift their conventional units to irregular formations and adopt new tactics as Iraq's *fedayeen* did in 2003. Evidence from open sources suggests that several powers in the Middle East are modifying their forces to exploit this more complex and diffused mode of conflict. We may find it increasingly perplexing to characterize states as essentially traditional forces, or nonstate actors as inherently irregular. Future challenges will present a more complex array of alternative structures and strategies as seen in the battle between Israel and Hizballah in 2006. The latter effectively fused militia forces with highly trained fighters and antitank guided missile teams into the battle. Hizballah clearly demonstrated the ability of nonstate actors to study and deconstruct the vulnerabilities of Western-style militaries and devise appropriate countermeasures.

The lessons learned from this confrontation are already cross-pollinating with other states and nonstate actors. With or without state sponsorship, the lethality and capability

The Second Lebanon War, 2006

In many details, the amorphous Hizballah is representative of the rising hybrid threat. The 34-day battle in southern Lebanon revealed some weaknesses in the posture of the Israel Defense Forces (IDF)—but it has implications for American defense planners, too. Mixing an organized political movement with decentralized cells employing adaptive tactics in ungoverned zones, Hizballah showed that it could inflict as well as take punishment. Its highly disciplined, well-trained distributed cells contested ground against a modern conventional force using an admixture of guerrilla tactics and technology in densely packed urban centers. Hizballah, like Islamic extremist defenders in the battles in Fallujah in Iraq during April and November of 2004, skillfully exploited the urban terrain to create ambushes and evade detection and to hold strong defensive fortifications in close proximity to noncombatants.¹

In the field, Israeli troops grudgingly admitted that the Hizballah defenders were tenacious and skilled.² The organized resistance was several orders of magnitude more difficult than counterterrorism operations in the West Bank and Gaza Strip. More importantly, the degree of training, fire discipline, and lethal technology demonstrated by Hizballah were much higher.

Tactical combinations and novel applications of technology by the defenders were noteworthy. In particular, the antitank guided missile systems employed by Hizballah against IDF armor and defensive positions, coupled with decentralized tactics, were a surprise. At the battle of Wadi Salouqi, a column of Israeli tanks was stopped in its tracks with telling precision.³ Hizballah's anti-tank weapons include the Russian-made RPG-29, Russian AT-13 Metis, and AT-14 Kornet, which has a range of 3 miles. The IDF found the AT-13 and AT-14 formidable against their first line Merkava Mark IV tank. A total of 18 Merkavas were damaged, and it is estimated that antitank guided missiles accounted for 40 percent of IDF fatalities. Here we see the blurring of conventional systems with irregular forces and nontraditional tactics.



Hizballah even managed to launch a few armed unmanned aerial vehicles, which required the IDF to adapt in order to detect them. These included either the Iranian Mirsad-1 or Ababil-3 Swallow. These concerned Israeli strategists given their global positioning system-based navigational system, 450-kilometer range, and 50-kilogram explosive carrying capacity.⁴ There is evidence that Hizballah invested in signals intelligence and monitored IDF cell phone calls for some time, as well

as unconfirmed reports that they managed to decrypt IDF radio traffic. The defenders also seemed to have advanced surveillance systems and very advanced night vision equipment. Hizballah's use of C802 antiship cruise missiles against an Israeli missile ship represents another sample of what "hybrid warfare" might look like, which is certainly relevant to naval analysts as well.

Perhaps Hizballah's unique capability is its inventory of 14,000 rockets. Many of these are relatively inaccurate older models, but thanks to Iranian or Syrian support, they possess a number of missile systems that can reach deep into Israel. They were used both to terrorize the civilian population and to attack Israel's military infrastructure. Hizballah managed to fire over 4,100 rockets into Israel between July 12 and August 13, culminating with 250 rockets on the final day, the highest total of the war. Most of these were short range and inaccurate, but they achieved strategic effects both in the physical domain, by forcing Israel to evacuate tens of thousands of citizens, and in the media, by demonstrating their ability to lash back at the region's most potent military.

Ralph Peters, who visited Lebanon during the fighting, observed that Hizballah displayed impressive flexibility, relying on the ability of cellular units to combine rapidly for specific operations or, when cut off, to operate independently after falling in on prepositioned stockpiles of weapons and ammunition. Hizballah's combat cells were a hybrid of guerrillas and regular troops—a form of opponent that U.S. forces are apt to encounter with increasing frequency.⁵

¹ Andrew Exum, *Hizballah at War: A Military Assessment*, Policy Focus #63 (Washington, DC: Washington Institute for Near East Policy, December 2006), 9–11.

² Matthew Stannard, "Hezbollah wages new generation of warfare," *San Francisco Chronicle*, August 6, 2006; Jonathan Finer, "Israeli Soldiers Find a Tenacious Foe in Hezbollah," *The Washington Post*, August 8, 2006, 1.

³ Judith Palmer Harik, *Transnational Actors in Contemporary Conflicts: Hizballah and its 2006 War with Israel* (Cambridge: Harvard University Press, March 2007), 14; Exum, 9–14.

⁴ Exum, 5; see also Harik, 19–20.

⁵ Ralph Peters, "Lessons from Lebanon: The New Model Terrorist Army," *Armed Forces Journal International* (October 2006), 39.

of organized groups are increasing, while the incentives for states to exploit nontraditional modes of war are on the rise. This will require that we modify our mindsets with respect to the relative frequency and threats of future conflict. Irregular tactics and protracted forms of conflict are often castigated as tactics of the weak, employed by nonstate actors who do not have the means to do anything else. Instead of weakness, future opponents may exploit such means because of their effectiveness, and they may come to be seen as *tactics of the smart and nimble*. The future may find further evidence that hybrid threats are truly effective against large, ponderous, and hierarchical organizations that are mentally or doctrinally rigid.

Some analysts in Israel have all too quickly dismissed the unique character of Hizballah. These analysts blithely focus inward on the failings of the political and military leadership.¹⁷ This is a fatal disease for military planners, one that can only benefit future Hizballahs. As Winston Churchill so aptly put it, “However absorbed a commander may be in the elaboration of his own thoughts, it is sometimes necessary to take the enemy into account.” So, too, must military historians and serious efforts to extract lessons from current history. Russell Glenn, a retired U.S. Army officer now with RAND, conducted an objective evaluation and concluded that the second Lebanon conflict was inherently heterogeneous and that attempts to focus on purely conventional solutions were futile. Moreover, as both Ralph Peters and I concluded earlier, this conflict is not an anomaly, but a harbinger of the future. As Glenn summed up in *All Glory Is*

Fleeting, “Twenty-first century conflict has thus far been typified by what might be termed as *hybrid wars*.”¹⁸

Implications

The rise of hybrid warfare does not represent the end of traditional or conventional warfare. But it does present a complicating factor for defense planning in the 21st century. The implications could be significant. John Arquilla of the Naval Postgraduate School has noted, “While history provides some useful examples to stimulate strategic thought about such problems, coping with networks that can fight in so many different ways—sparking myriad, hybrid forms of conflict—is going to require some innovative thinking.”¹⁹

We are just beginning this thinking. Any force prepared to address hybrid threats would have to be built upon a solid professional

*hybrid wars blend the lethality
of state conflict with the
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of irregular warfare*

military foundation, but it would also place a premium on the cognitive skills needed to recognize or quickly adapt to the unknown.²⁰ We may have to redouble our efforts to revise our operational art. We have mastered operational design for conventional warfare, and recently reinvigorated our understanding of counter-insurgency campaigns. It is not clear how we adapt our campaign planning to combina-

tions of the two. What is the center of gravity in such conflicts, and does it invalidate our emphasis on whole-of-government approaches and lines of operations?

Success in hybrid wars also requires small unit leaders with decisionmaking skills and tactical cunning to respond to the unknown—and the equipment sets to react or adapt faster than tomorrow’s foe. Organizational learning and adaptation would be at a premium, as would extensive investment in diverse educational experiences.²¹ What institutional mechanisms do we need to be more adaptive, and what impediments does our centralized—if not sclerotic—Defense Department generate that must be jettisoned?

The greatest implications will involve force protection, as the proliferation of IEDs suggests. Our enemies will focus on winning the mobility-counter mobility challenge to limit our freedom of action and separate us from close proximity to the civilian population. The ability of hybrid challenges to exploit the range and precision of various types of missiles, mortar rounds, and mines will increase over time and impede our plans. Our freedom of action and ability to isolate future opponents from civilian populations are suspect.

The exploitation of modern information technology will also enhance the learning cycle of potential irregular enemies, improving their ability to transfer lessons learned and techniques from one theater to another. This accelerated learning cycle has already been seen in Iraq and Afghanistan, as insurgents appeared to acquire and effectively employ tactical techniques or adapt novel detonation devices found on the Internet or observed from a different source. These opponents will remain elusive, operate in an extremely distributed manner, and reflect a high degree of opportunistic learning.

The U.S. military and indeed the armed forces of the West must adapt as well. As one Australian officer put it, unless we adapt to today’s protean adversary and the merging modes of human conflict, “we are destined to maintain and upgrade our high-end, industrial age square pegs and be condemned for trying to force them into contemporary and increasingly complex round holes.”²²

DOD recognizes the need for fresh thinking and has begun exploring the nature of this mixed challenge. An ongoing research project, including a series of joint wargaming exercises, has been initiated by the Office of the Secretary of Defense. U.S. Joint Forces Command is exploring the implications as well, and the

Marines aid displaced Iraqi civilians near An Nasiriyah during Operation Iraqi Freedom, March 2003



U.S. Marine Corps (Mace M. Gatz)

Marines are doing the same. But the challenge affects all the Services, not just ground forces. Hizballah's use of long-range missiles, armed unmanned aerial vehicles, and antiship cruise missiles should be a warning to the whole joint community. The maritime Services understand this and reflected the new challenge in the national maritime strategy: "Conflicts are increasingly characterized by a hybrid blend of traditional and irregular tactics, decentralized planning and execution, and non-state actors, using both simple and sophisticated technologies in innovative ways."²³

Tomorrow's conflicts will not be easily categorized into conventional or irregular. The emerging character of conflict is more complicated than that. A binary choice of big and conventional versus small or irregular is too simplistic. The United States cannot imagine all future threats as state-based and completely conventional, nor should it assume that state-based conflict has passed into history's dustbin. Many have made that mistake before. State-based conflict is less likely, but it is not extinct. But neither should we assume that all state-based warfare will be entirely conventional. As this article suggests, the future poses combinations and mergers of the various methods available to our antagonists.

Numerous security analysts have acknowledged the blurring of lines between modes of war.²⁴ Hybrid challengers have passed from a concept to a reality, thanks to Hizballah. A growing number of analysts in Washington realize that the debate about preparing for counterinsurgency or stability operations versus big wars is a false argument. Such a debate leads to erroneous conclusions about future demands for the joint warfighting community. Scholars at the Naval War College in Newport, Rhode Island, and at King's College, London, endorsed the concept.²⁵ Max Boot concluded his lengthy study of war and technology with the observation that

*The boundaries between "regular" and "irregular" warfare are blurring. Even non-state groups are increasingly gaining access to the kinds of weapons that were once the exclusive preserve of states. And even states will increasingly turn to unconventional strategies to blunt the impact of American power.*²⁶

This should widen our lens about the future joint operating environment. Yet our focus remains on an outmoded and dated

bifurcation of war forms, and this orientation overlooks the most likely and potentially the most dangerous of combinations. One pair of respected strategists has concluded that "hybrid warfare will be a defining feature of the future security environment."²⁷ If true, we face a wider and more difficult range of threats than many in the Pentagon are thinking about. As today's Spartans, we will have to take the enemy's plans into consideration and adapt into a more multidimensional or joint force as Sparta ultimately did.

Today's strategists need to remember the frustrated Spartans outside Athens' long wall and remember the bloody success of the British, Russians, and Israelis in their long wars against hybrid threats—and prepare accordingly. **JFQ**

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Systems versus Classical Approach to WARFARE

By MILAN N. VEGO



U.S. and Australian officers helping to shape strategic planning in Global Mobility Wargame 2008

Since the mid-1990s, a systems (or systemic) approach to warfare emerged gradually as the dominant school of thought in the U.S. military, most other Western militaries, and the North Atlantic Treaty Organization (NATO). This was exemplified by the wide and almost uncritical acceptance, not only in the United States but also in other militaries, of the claims by numerous proponents of the need to adopt network-centric warfare (NCW), effects-based

operations (EBO), and most recently a systemic operational design (SOD). Yet little if any attention was given to some rather serious flaws in the theoretical foundations of various systems approaches to warfare. Classical military thought was declared unable to satisfy the requirements of the new environment that emerged in the aftermath of the Cold War and the advent of advanced information technologies and increasingly lethal and precise long-range weapons. Carl von Clausewitz's (1780–1831) ideas on the

nature of war were ignored. Yet U.S. and NATO experiences in the recent conflicts in Afghanistan and Iraq, and the Israeli experience in the second Lebanon war in 2006, have revealed not only serious limitations but also important flaws in the practical application of the systems view of war. These conflicts have shown the timeless value of the Clausewitzian view of warfare. The future might well show that most efforts and resources spent on adopting a systems view of warfare were essentially wasted.

Never neglect the psychological, cultural, political, and human dimensions of warfare, which is inevitably tragic, inefficient, and uncertain. Be skeptical of systems analysis, computer models, game theories, or doctrines that suggest otherwise.

—Secretary of Defense
Robert Gates¹



Pilots attending Red Flag Mission Debriefing System session receive instant feedback on training

U.S. Air Force (Don Sutherland)

The Roots

The military application of a systems² approach to planning can be traced to the 1930s when U.S. Army Air Corps planners at the Air Corps Tactical School in Langley, Virginia, developed the theory of strategic bombing. U.S. airpower theorists believed that the main threads of the enemy economy could be identified and evaluated *prior* to the outbreak of hostilities. This so-called industrial web theory focused on those critical industries upon which significant portions of an enemy war economy relied.³ The intent was to use a systems approach to generate cascading effects that would lead to the collapse of the enemy's economy. The ultimate aim was to reduce the enemy's will to resist and force him to cease fighting. According to this view, the proper application of industrial web theory would ensure rapid and decisive victory.⁴

Industrial web theory was applied on a large scale during World War II in the strategic bombing of Germany, German-occupied Europe, and Japan. However, the actual results were far below expectations in terms of materiel and time expended. Germany's industrial infrastructure proved resilient and extremely adaptable, and civilian morale did not collapse, as widely anticipated by airpower proponents. Some 5 years of strategic bombing destroyed entire cities, killed hundreds of thousands of civilians, curtailed industrial output, and crippled transportation nodes. Yet despite the enormous effect, such effects-based operations failed to render a strategic decision.⁵

The impetus toward adopting an effects-based approach came in the aftermath of the Vietnam War (1965–1975). Then, the U.S. military emphasized the need to link objectives at all levels of war—from the national political level to the tactical—in a logical and causal chain. In their interpretation, this outcome-based or strategy-to-task approach became the basis for joint planning. The Air Force firmly believed that its targeteering approach to warfare could somehow be applied at all levels of war. The most vocal proponents of airpower claimed that advances in information technologies and the precision and lethality of weapons allowed the use of those weapons against complex systems and in a way that was more sophisticated than previously. Another reason for the reemergence

of the effects-based approach was the political and social pressure to reduce the costs of military operations and wage war with the fewest losses of human lives for the friendly (and often the enemy) side.⁶ Such beliefs gained increasing influence, not only within the Air Force but also among the highest U.S. political and military leadership.

The theoretical foundation of effects-based warfare was provided in 1993 in the writings of Colonel John Warden III, USAF, and his theory of strategic paralysis. Warden depicted the enemy as a system of systems.⁷ He also pointed out the relative nature of effects within the enemy system.⁸ In Warden's view, to think strategically was to view the enemy as a "system" composed of numerous subsystems.⁹ He contended that all systems are similarly organized, need information to function, are resistant to change, and do not instantly react to the force applied against them (the hysteresis effect).¹⁰

The essence of Warden's systems approach is the Five Ring Model. He argued that any modern state, business organization, military, terrorist organization, or criminal gang can be seen as consisting of a system of five interrelated rings that enable it to perform its intended function.¹¹ All systems are arranged in the same way:

- "leadership" elements provide general direction
- "processes" (formerly called "organic essentials") elements convert energy from one ring to another
- "physical infrastructure" elements
- "population" elements
- "agents" (formerly called "fielded forces") elements, consisting of demographic groups.¹²

Warden also applied his model to the operational level of war. The only difference is that each of the rings pertains directly to military sources of power. For example, the leadership ring consists of the enemy's commander plus the command, control, and communications systems. The processes ring also includes military logistics. The infrastructure ring includes roads, rails, communications lines, and pipelines. The fifth ring is the enemy's forces—troops, ships, and aircraft—and is the hardest to reduce. Warden asserted that any campaign focused on the fifth ring would be the longest and bloodiest for both sides. Yet he acknowledged that sometimes it is necessary to concentrate on the fifth ring

to reduce it to some extent in order to reach inner operational or strategic rings.¹³ The Air Force gradually embraced Warden's model.¹⁴

Systems View of the Military Situation

EBO advocates have a radically different view of analyzing the military situation from proponents of the traditional approach based on the commander's estimate (or appreciation) of the situation. Proponents of EBO insist that the best way to visualize the military situation is to evaluate what they call a "system of systems." The latter is, in its essence, a variation of the Five Ring Model. In an oddly worded construct, they define *system of systems* as "a grouping of organized assemblies of resources, methods, and procedures regulated by interaction or interdependence to accomplish a set of specific functions."¹⁵ Both Joint Publication (JP) 3–0, *Joint Operations* (2006), and JP 5–0, *Joint Operation Planning* (2006), embraced the system perspective in analyzing situations. A system of systems is an integral part of what EBO proponents call the "operational environment." The latter, in turn, is composed of "air, land, sea, space, and

the Air Force firmly believed that its targeteering approach to warfare could be applied at all levels of war

associated adversary, friendly, and neutral systems, which are relevant for specific joint operations."¹⁶

A system of systems analysis (SoSA) is used as the bedrock for EBO planning. It is divided into six major systems: political, military, economic, social, infrastructure, and information.¹⁷ Each of these systems, in turn, is broken down and reduced to two primary sets of elements: nodes (actually decisive points) and links. *Nodes* are tangible elements (persons, places, or physical things) within a system that can be "targeted." *Links*, in contrast, are the physical, functional, or behavioral relationships between nodes.¹⁸ SoSA identifies the relationships between nodes within individual systems and across systems. Analysts also link nodes to each other with sufficient detail and then determine *key nodes*—defined as those "related to strategic or operational effect or a center of gravity." Some nodes may become decisive points for military operations when acted upon.¹⁹ EBO

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proponents confuse the true meanings of effects, centers of gravity, and decisive points.

SoSA produces a nodal analysis that, together with effects development, forms the basis for coupling nodes to effects, actions (called *tasks* in the traditional military decisionmaking and planning process) to nodes, and resources to establish effects-nodes-action linkages. The nodes and associated links are then targeted for diplomatic, informational, military, and economic (DIME) actions to influence or change system behavior and capabilities and thereby accomplish desired objectives. Lethal or nonlethal power and other instruments of national power are employed to affect links in order to attain operational and strategic effects.²⁰ The aim is to create effects within the enemy's system such as blindness, decapitation, and the sense of pursuit, thereby bringing about a state of strategic paralysis, collapse, and ultimately accomplishing the

dubious proposition. They mistakenly believe that by linking cause and effect, something as complex as human activity can be reduced to an essentially passive and lifeless domain. In fact, the reality depicted by EBO proponents does not exist—nor can it be created.²² In short, human activity is so complex that it operates outside the physical domain. For instance, the Israelis adopted the U.S. effects-based approach to warfare with a great deal of enthusiasm and apparently without a healthy dose of skepticism. Among other things, they neglected the importance of the concept of center of gravity. Instead of issuing clear and succinct orders, advocates relied on the highly ambiguous and unclear vocabulary of EBO in articulating the missions for subordinate units. For example, the orders issued to the Israeli 91st Division during the second Lebanon war in 2006 (Operation *Change of Direction*) directed them to carry out “swarmed, multi-dimensional,

design, also looks at the situation from the systems perspective. This concept originated in the Israel Defense Forces Operational Theory Research Institute in the mid-1990s. The genesis for SOD theory was found within Soviet operational thought.²⁴ Another major influence on the development of this concept was the thinking of several (mostly left-leaning) French postmodern philosophers, especially Gilles Deleuze (1925–1995) and Felix Guattari (1930–1992). Proponents explain that systemic operational design was developed as an alternative to the Western teleological approach, while operational design is based on epistemology.

In contrast to EBO advocates, SOD advocates acknowledge that uncertainty is an attribute of complex adaptive systems, such as war. They addressed that problem by employing what they call continuous *systems reframing*—an awkward term—which tradi-

EBO enthusiasts do not make clear who has the authority and responsibility to plan and execute DIME actions

tionalists simply call the “running estimate of the situation.” SOD enthusiasts insist that while the EBO approach focuses on disrupting nodes and relationships, systemic operational design centers on transforming relationships and interactions between the entities within a system.²⁵ Like the effects-based approach, systemic operational design also analyzes a complex situation from what they call a “holistic” (that is, emphasizing the importance of the whole and interdependence of its parts) perspective.²⁶ SOD enthusiasts claim that modern military operations are too complicated for applying a linear approach because the enemy and environment form a complex adaptive system. However, they mistakenly argue that such systems cannot be destroyed but must be pushed into disequilibrium—that is, into chaos. Yet the Israeli failure to decisively defeat the Hizballah forces in the second Lebanon war illustrates the hollowness of both the EBO and SOD approaches to warfare.²⁷

SOD proponents falsely claim that intelligence preparation of the battlefield (IPB) is most suitable for the tactical but not higher levels of war. In their view, IPB deals only with physical reality. Its mechanistic and reductionist processes are more appropriate



Army Chief of Staff GEN Casey tours Anniston Army Depot

U.S. Army (D. Myles Cullen)

war's strategic objective.²¹ However, EBO enthusiasts do not make clear who has the authority and responsibility to plan and execute DIME actions. Some of them even imply that these actions are the responsibility of the operational commanders—but they are not. Only the highest political-strategic leadership of a country or alliance/coalition can plan for and execute synchronized employment of both nonmilitary and military instruments of power.

EBO advocates are confident that by acting against a physical part of the enemy system, desired effects in the domain of human activity can be achieved. Yet this is a highly

and simultaneous attacks” instead of stating clearly what the mission was. Already in 2004, the Israelis found out that in order to stop the launching of rockets into Israeli territory, it was necessary to affect enemy *capabilities* rather than *consciousness*. During the second Lebanon war, so-called leverage and effects against Hizballah proved dismally ineffective to bring the organization “to acknowledge its bad condition” within a few days after the conflict started.²³

Another variant of the systems approach that unfortunately got some traction in the U.S. Army, so-called systemic operational

in hierarchical organizations and in situations where compliance is more important than time-consuming discourse. In their view, IPB is insufficient for operational planning in the contemporary operational environment. SOD proponents argue that the operational level deals with more than just the physical enemy; it draws on concepts and abstractions.²⁸ However, IPB properly understood and applied is not what systems proponents claim it to be; in fact, it is just the opposite. IPB encompasses a comprehensive analysis of the situation regardless of the level of war. Properly understood, it includes the evaluation of neither military nor nonmilitary aspects of the situation.

Systems vs. Operational Thinking

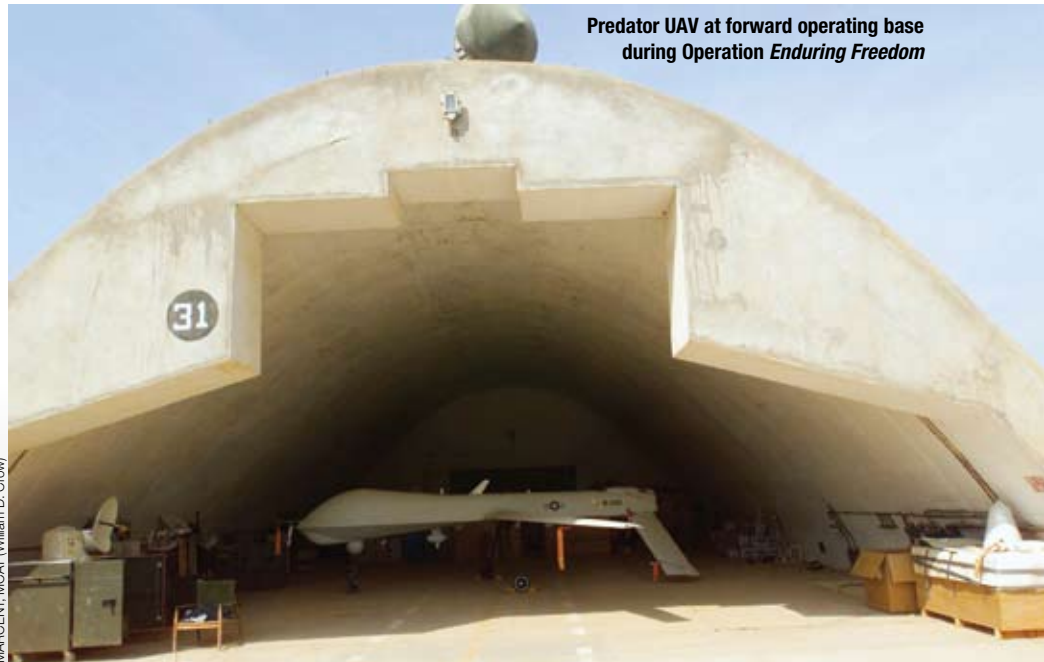
Systems thinking has been developed to provide techniques for studying systems in a holistic way to supplement the traditional reductionist method. The principle of analytical reduction characterizing the Western intellectual tradition came from René Descartes (1596–1650). This type of analysis is the process of identifying the simple nature in complex phenomena and dividing each problem into as many parts as possible to best solve it. Experience has shown that reductive analysis is the most successful explanatory technique ever used in science.²⁹

Systems thinking approaches a system in a holistic manner. The system is understood by examining the linkages and interactions between the elements that compose the entirety of the system. Systems thinking attempts to illustrate that events are separated by distance and time and that small catalytic events can cause large changes in complex systems. Supposedly, it contrasts traditional analysis, which studies systems by breaking them down into separate elements. Systems thinking provides a framework where mental models can be built, relationships between systems components can be uncovered, and patterns of behavior can be determined. Both the relationships within the system and the factors that influence them enable the construction and understating of the underlying system logic. Proponents claim that systems thinking views a system from the broad perspective that includes seeing its structure, patterns, and cycles rather than seeing individual events. The component parts of a system can best be understood in the context of relationships with each other and with other systems, rather than in isolation.³⁰

The systems perspective in analyzing a military situation is actually reductionist and overly simplistic. Systems do not behave exactly as individual components, or even as a quantitative sum of individuals; the general performance and function of a system usually produce results considerably different from that of the arithmetical-linear summation of results of the individual ingredients that compose it.³¹ Advocates of the systems approach seek scientific certainties and rationality where uncertainty, chaos, and irrationality abound. They assume that all elements of the situation can somehow be precisely determined and no mistakes will be made. The enemy is essentially passive and will behave

war, the more complex the interplay is among various intangible elements. Both the tangible and intangible elements of the situation include military and nonmilitary sources of power. The tangible elements are for the most part measurable in some way. Despite the widely held belief that tangible elements can be quantified, this is not always the case. The tangible and intangible elements are usually mixed and cannot be neatly separated. This is especially true in the case of forces employed at operational and strategic levels. Tangible factors can be properly or improperly evaluated, they can change over time, and they can be intentionally or inadvertently reported erroneously. They can be wrongly understood

systems do not behave exactly as individual components, or even as a quantitative sum of individuals



Predator UAV at forward operating base during Operation Enduring Freedom

in a way that will ensure friendly success. This view of warfare is overly simplistic because it does not accommodate the Clausewitzian factors of the friction and fog of war and the role of psychological factors in warfare.

A more serious problem is that proponents of the systems approach ignore the fact that the tangible and intangible elements of the situation cannot simply be reduced to nodes and links. The human factor is the key element in analyzing the situation at any level of war, but especially at the strategic and operational levels, that is, those levels at which a war is won or lost. The higher the level of

because of fear, hate, lack of confidence, fatigue, and stress.

Tangible elements can also be falsely evaluated. For example, the number or size of enemy forces or weapons/equipment might be accurately observed but falsely reported or evaluated without a context. Information received might be accurate but wrongly interpreted by commanders and staffs. This can occur intentionally or unintentionally. It can be caused by incompetence, lack of operations security, or treason. The commander can falsely evaluate the enemy's capabilities or intentions. Misunderstandings between commanders

and subordinates are frequent occurrences in combat; they cannot be predicted or quantified. The breakdown of weapons or technical equipment can occur at any time. The effects of atmospheric influences cannot usually be measured precisely. Except in rare cases, natural events cannot be predicted in a timely fashion. Hence, the unreliability of humans and technology considerably affects performance on both sides in a conflict. The boundaries between tangible and intangible factors are in the realm of chance and are fluid.³²

In contrast to tangibles, intangibles are hard or even impossible to quantify with precision. Intangibles pertain for the most part to human elements. Some of these, such as cohesion of an alliance/coalition, public support for war, morale and discipline, and unit cohesion, can be evaluated in very broad terms: low, medium, high, or excellent. Other intangible elements—such as leadership, will to fight, small-unit cohesion, combat motivation, and doctrine—are extremely difficult to quantify with any degree of precision or confidence. At the strategic level, the quality of the enemy's highest political and military leadership and its future intentions and reactions are difficult, if not impossible, to evaluate and even less so to predict with confidence. The enemy's leadership can make decisions that are perceived as slightly or grossly irrational.

The traditional way of military thinking is not only far more comprehensive but also far more realistic, dynamic, and flexible

than systems thinking. It avoids all the pitfalls associated with viewing a war through systems-of-systems prisms. One of the principal requirements for success at the operational and strategic levels of command is to think broadly and have a panoramic vision.³³ Operational thinking is not identical to what information warfare advocates call situational awareness—a term used in training pilots; strictly defined, *situational awareness* refers to the degree of accuracy with which one's perception of the current environment mirrors reality. Situational awareness does not necessarily mean an *understanding*; it is purely a tactical, not operational or strategic, term. The extensive use of the term *situational awareness* in the U.S. and other mili-

although operational thinking is one of the most critical factors for success, many operational commanders have remained captives of their tactical perspective

taries is perhaps one of the best proofs of the predominance of a narrow tactical perspective among information warfare advocates.

The commander's ability to think operationally, or what the Germans call operational thinking (*operatives Denken*), is usually not an innate trait but is acquired and nurtured for many years prior to assuming a position of responsibility at the operational level. The

requirement to think operationally has been recognized by many theorists and practitioners of operational warfare. For example, the Prussian general Gerhard Johann David von Scharnhorst (1755–1813) observed that “one has to see the whole before seeing its parts. This is really the first rule, and its correctness can be learned from a study of history.”³⁴ Clausewitz wrote that “small things always depend on great ones—the unimportant on the important, and accidentals on essentials; this must guide our approach.”³⁵ Helmuth von Moltke, Sr. (1800–1891), the Prussian and German Chief of General Staff (1857–1888), wrote, “All individual successes achieved through the courage of our [German] troops on the battlefield are useless if not guided by great thoughts and directed by the purpose of the campaign and the war as a whole.”³⁶ He believed that “it is far more important that the high commander retain a clear perspective of the entire state of affairs than that any detail is carried out in a particular way.”³⁷

Operational thinking is a result of considerable conscious effort on the part of the commander, in both peacetime and combat. Although operational thinking is one of the most critical factors for success, whether in peacetime or time of war, many operational commanders have remained essentially captives of their narrow tactical perspective. To think tactically is easy; it is an area in which all commanders feel comfortable because this is what they have done for most of their professional careers. History provides numerous examples in which a commander's inability or unwillingness to think broadly and far ahead resulted in major setbacks, or even in the failure of a campaign or major operation.

A commander thinks operationally when he possesses an *operational* rather than tactical perspective in exercising his numerous responsibilities, both in peacetime and in war. In purely spatial terms, the operational perspective encompasses the (formally declared or undeclared) theater of operations plus an arbitrarily defined area of interest. The perspective of a tactical commander is much smaller because he is focused on planning and executing actions aimed at accomplishing tactical objectives in a given combat zone or area of operations. The broadest perspective is required at the military and theater-strategic levels of command. Among other things, the strategic perspective requires the commander's ability to translate objectives of national policy and strategy into achievable military or theater-

USS *La Jolla* returns to Naval Station Pearl Harbor from 6-month Pacific deployment



U.S. Navy (Ludiano Merano)

strategic objectives and then to orchestrate the use of military and nonmilitary sources of power to achieve them. The tactical commander is normally not concerned with using nonmilitary sources of power, but operational and strategic commanders are. However, the exception to this is operations short of war, such as the posthostilities phase of a campaign and low-intensity conflicts, where nonmilitary aspects of the situation play an important role at all levels of war.

Operational commanders cannot be highly successful without having full knowledge and understanding of the mutual interrelationships and linkage between strategy and policy on one hand, and strategy, operational art, and tactics on the other. They should fully understand the distinctions among the levels of war and how decisions and actions at one level affect events at others. In sequencing and synchronizing the use of military and nonmilitary sources of power, operational commanders must have the ability to focus on the big picture and not be sidetracked by minor or unrelated events.

An operational commander should also possess extensive knowledge and understanding of nonmilitary aspects of the situation in his theater. In contrast to the tactical commander, the operational commander has to properly sequence and synchronize the employment of all sources of power in the conduct of a campaign or major operation. Sound operational decisions must be made, although the knowledge and understanding of some essential elements of the situation are far from satisfactory and uncertainties abound. There is greater uncertainty for the operational commander than for a tactical commander in terms of space, time, and forces. Generally, a commander can more accurately measure the risks of an action or nonaction at the tactical than at the operational level.³⁸

The operational commander has to properly balance the factors of space, time, and forces against a given strategic or operational objective; otherwise, he might fail in accomplishing the ultimate objective of a campaign or major operation. Because of the greater scale of the objectives, this process is much more difficult and time consuming than at the tactical level of command. In general, the larger the scope of the military objective is, the more the uncertainties that fall within the commander's estimate of the situation. The operational commander must have an uncanny ability to anticipate the enemy's reaction to his own

actions and then make decisions to respond to the enemy's actions.

In contrast to a tactical commander, an operational commander needs to evaluate the features of the physical environment in operational rather than tactical terms. This means, among other things, assessing characteristics of geography, hydrography, and oceanography in terms of their effect on the course and outcome of a major operation and campaign, not on battles and engagements or some other tactical actions. The operational commander is also far more concerned with the effects of climate, rather than weather, on the employment of multiservice/multinational forces in a given part of the theater.

Thinking operationally means that the operational commander clearly sees how each of his decisions contributes to the ultimate strategic or operational objective. All the actions of the operational commander should be made within the given operational or strategic framework; otherwise, they will not contribute to ultimate success and might actually undermine it. As in a game of chess, the player who views the board as a single interrelated plane of action, with each move as a prelude to a series of further moves, is more likely to be successful than an opponent who thinks only a single move at a time. The operational commander should think how to create opportunities for employing his forces while

to make another decision to respond to the enemy's counteraction. The key to success is to operate within the enemy's decision cycle. Without this ability, the operational commander cannot seize and maintain the initiative—and without the initiative, his freedom of action will be restricted by the opponent.

The operational commander should also have the ability to evaluate the impact of new and future technologies on the conduct of operational warfare. He must not focus on specific weapons or weapon platforms and sensors but should anticipate the influence these will have on the conduct of campaigns or major operations when used in large numbers. Moltke was one such rare individual who understood the impact that the technological advances of his era, specifically the railroad and telegraph, would have on the conduct of war and campaigns. He emphasized the importance of railways in the movement of troops, especially in the mobilization and deployment phase of a campaign. He directed the drafting of the first mobilization plan and movement tables in 1859. He also paid attention to the analysis of military technical advances.⁴² Field Marshal Alfred von Schlieffen (1833–1913) showed great enthusiasm for adopting new technologies. However, in contrast to Moltke, he lacked proper vision where future technical developments were concerned.⁴³

thinking operationally means the operational commander sees how each of his decisions contributes to the ultimate strategic or operational objective

at the same time reducing the enemy's future options.³⁹ One of the most important attributes of a higher commander is the ability to see the situation through the enemy's eyes—what Napoleon I called “seeing the other side of the hill.” Largely, this ability is intuitive. Napoleon I and some other successful military leaders had an extraordinary ability to visualize what the enemy's commander would do in countering the movements of their own forces.⁴⁰

A commander thinks operationally when he looks beyond the domain of physical combat and into the future. The greater one's sphere of command, the further ahead one should think.⁴¹ By correctly anticipating the enemy's reaction to his own actions, the operational commander can make a sound and timely decision, counteract, and then prepare

Closely linked to operational thinking is the commander's *operational vision*—that is, the ability to correctly envision the military conditions that will exist after the mission is accomplished. Operational vision is the practical application of operational thinking in planning, preparing, and executing a campaign or major operation. Hence, it is inherently narrower in its scope than operational thinking. In terms of time, it is also limited to the anticipated duration of a campaign or major operation. The commander's operational vision is expressed in his *intent* transmitted to subordinate tactical commanders. It is critical for success that the operational commander imparts his personal vision of victory and the conditions and methods for obtaining it to all subordinates. The commander's vision

is a combination of his personality traits, education and training, and experience. In general, the higher the level of command, the further into the future the commander must look to achieve and consolidate the desired combat success. And the larger the scope of the military objective, the more complex the situation and more difficult it is to correctly envision the military endstate and the unfolding of events leading to it.

Systems vs. Clausewitzian View of War

All the proponents of the systems approach, regardless of their differences, essentially share the mechanistic or Newtonian view of warfare. They believe that the information age is so different that the classical theory of war as explained by Clausewitz has become irrelevant. They clearly confuse the distinctions between the nature of war and character of war. *Nature of war* refers to constant, universal, and inherent qualities that ultimately define war throughout the ages, such as violence, chance, luck, friction, and uncertainty. Hence, the nature of war is timeless regardless of the changes in the political environment, the cause of a war, or technological advances.⁴⁴ *Character of war* refers to those transitory, circumstantial, and adaptive features that account for the different periods of warfare. They are primarily determined by sociopolitical and historical conditions in a certain era as well as technological advances. Systems approach advocates firmly believe that technology is the most important factor affecting both the nature and character of war. They view war as an open, distributed, nonlinear, and dynamic system. It is highly sensitive to initial conditions. It is characterized by complex hierarchical systems of feedback loops. Some of the loops are designed but others are not. Feedback results are invariably nonlinear.⁴⁵

The Newtonian view of the world is that of a giant machine. Everything runs smoothly, precisely, and predictably. Everything is measurable.⁴⁶ Systems approach proponents suggest that all problems in warfare can be easily resolved and that military operations are immune to perturbations from their wider environment. All that is needed is for one's military machine to operate at peak efficiency; then victory is ensured. The neo-Newtonians believe the outcome of a war can be predicted. Hence, they put an extraordinary emphasis on quantifiable methods in measuring the progress and outcome of combat. They offer a clean concept of warfare, believing that a direct

link can be established between cause and effect. Small causes lead to minor results, while decisive outcomes require massive inputs. The proportional connection can be established between each cause and effect.⁴⁷ War is considered a one-sided problem rather than an interaction between two animate forces. The enemy's actions or reactions can essentially be disregarded. In fact, because the enemy cannot be controlled, he is not considered a factor at all.⁴⁸ The neo-Newtonians acknowledge that uncertainties and friction existed in past wars. However, they contend that fog of war and friction in combat were caused by the inability to acquire and transmit information in real or near-real time.⁴⁹ Friction can be reduced to manageable levels by deploying a vast array of sensors and computers netted together.

A systems approach to warfare is not much different from the failed "geometrical" or "mathematical" school that dominated military thinking in Europe in the late 18th century, which Clausewitz vehemently opposed. Contrary to the views of many EBO proponents,

the Newtonian view of the world is that everything runs smoothly, precisely, and predictably

the Prussian did not embrace the systems view of warfare. In fact, he ridiculed thinkers such as Dietrich Heinrich von Buelow (1757–1807), one of the leaders of the mathematical school, who took all moral values out of the theory and dealt only with materiel, reducing all warfare to a pair of mathematical equations of balance and superiority in time and space, and a pair of angles and lines.⁵⁰ Clausewitz was against any dogmatic way of thinking. Among other things, he commented that efforts were made to equip in order to conduct war with principles, rules, or even systems. The conduct of war in his view branches out in all directions and has no definite limits. Thus, "an irreconcilable conflict exists between this type of theory and actual practice."⁵¹

Clausewitz insisted that the outcome of any war cannot be predicted with certainty because so many intangible elements come into play.⁵² The art of war deals with living and moral forces. Thus, it cannot attain the absolute and must always leave a margin for uncertainty. The greater the gap between uncertainty on one hand, and courage and

self-confidence on the other, the greater the margin left for accidents.⁵³

Clausewitz wrote that war is not the action of a living force upon a lifeless mass but the collision of two living forces.⁵⁴ The enemy has his own will and can thus react unpredictably and even irrationally. Systems approach enthusiasts seem unaware that the timing and scope of irrationality cannot be predicted or measured. It is simply *unknown*. Yet irrational decisions on either side can have significant consequences on both a course and an outcome. In general, one can presume that rational actors in a war make rational and proper choices when confronted with competing alternatives, each having a cost and payoff that are known or available to the actors.⁵⁵ However, the pervasive uncertainty in any war, the role of chance and pure luck, and the enemy's independent will and actions make rationality in the conduct of war a highly unrealistic expectation. A rational calculus, after all, is based on the notion that nations fight wars in pursuit of postwar objectives whose benefits exceed their cost. Benefits and costs are weighed throughout the war, and once the expenditures of effort exceed the scale of the political objective, the objective must be renounced and peace will follow.⁵⁶ The rationality of decisionmaking presupposes each side knows exactly what the changing objectives of the other side are and what those objectives are worth in effort and sacrifice. They each also have all the necessary information to evaluate the other side's intent to continue or cease fighting. Thus, one side or the other can precisely calculate the enemy's relative current and future strengths.

Also, one or both sides can identify and compare the anticipated costs of all available options.⁵⁷ Systems approach proponents acknowledge that war is rarely at equilibrium because of the combined influences from the physical environment and such intangible factors as politics, leadership, and information. They also acknowledge the effect of friction, fatigue, loss of morale, and poor leadership.⁵⁸ Yet they seemingly do not realize that the systems approach cannot predict, much less correctly measure, combined effects of friction, uncertainty, danger, fear, chance, and luck in the conduct of war. Clausewitz wrote that friction is the only concept that "more or less corresponds to the factors that distinguish real war from war on the paper."⁵⁹ In his view, "Actions in a war are like movement in a resistant element; in war it is difficult for normal

efforts to achieve even moderate results.”⁶⁰ Friction consists of the infinite number of unforeseen things, large and small, that interfere with all activities in war.⁶¹ It encompasses uncertainties, errors, accidents, technical difficulties, and the unforeseen, and their effects on decisions, morale, and actions.⁶²

Clausewitz wrote that the military machine is basically simple and therefore easy to manage. Yet it is composed of many parts, and each part is composed of individuals. Each of these has the potential to generate friction. The ever-present factor of danger, combined with the physical exertions that war demands, compounds the problem. Friction is the factor that makes the apparently easy things in warfare so difficult.⁶³ Clausewitz wrote that the most serious source of friction in war is the difficulty of accurate recognition. This, in turn, makes things appear entirely different from what one expected. He also emphasized that friction in war cannot be reduced to a few points, as in mechanics. Friction is everywhere in contact with chance. It brings about “effects that cannot be measured—just because they are largely due to chance.”⁶⁴

Because combat is a clash of opposing wills, uncertainties and unknowns abound. This fog of war, when combined with friction, creates numerous ambiguities about which a commander must make decisions. The higher the level of war, the more uncertainties the situation encompasses. Chances of achieving surprise and deception increase as the fog of war increases. Clausewitz wrote that the only situation the commander knows fully is his own. He knows the enemy’s situation only from unreliable information. Also, it is human nature either to underestimate or overestimate enemy strengths.⁶⁵ The effectiveness of military forces is reduced when decisions are made, as they often are, on the basis of imperfect, incomplete, or even false information. The fog of war is the main factor that makes some commanders willing to take high (but prudent) risks and others extremely cautious or deliberative in making decisions. The uncertainties and imperfections in the knowledge of the situation on which the commander bases his decisions and actions can never be fully mastered, regardless of one’s advances in information technologies. Uncertainty in war is not only a result of a lack of information, but also often caused by what one does *not* comprehend in a given situation.

Despite some differences in emphasis, all systems enthusiasts share essentially the same

views on warfare. They are neo-Newtonians because they view warfare as a machine. For them, the outcome of a war is quite predictable. Hence, they try to quantify both tangible and intangible elements in war. Systems advocates generally overemphasize the role and importance of technology. They also believe that despite difficulties, uncertainties in a situation can be reduced if not even eliminated. The factor of friction can be mastered. One can easily agree that systems theories can be successfully applied in analyzing many aspects of human activities—for example, the economy, business, organizations, and political system. However, it is a quite a stretch to apply such theory to warfare. War is not economic activity, and it is not a business (as it is widely believed to be in the U.S. military and elsewhere). No other human activity even distantly approaches war in complexity and unpredictability.

One can disagree with many ideas espoused by Clausewitz 180 years ago. Yet despite the passage of the time, his views on the nature of war, the relationship between policy and strategy, and the importance of moral and psychological factors in warfare are as valid today as they were then. Warfare has remained a domain full of uncertainties, friction, chance, luck, fear, danger, and irrationality. No advances in technology will ever change that. Finally, any new or emerging military theory, including the systems approach to warfare, must fully meet the test of reality. And if the theory conflicts with reality, then it must be modified, radically changed, or abandoned. **JFQ**

NOTES

¹ Robert M. Gates, remarks before the National Defense University, Washington, DC, September 29, 2008, available at <www.defenselink.mil/speeches/speech.aspx?speechid=1279>.

² Steven M. Rinaldi, *Beyond the Industrial Web: Economic Synergies and Targeting Methodologies* (Maxwell Air Force Base, AL: Air University Press, 1995), 7–8, 10. The U.S. military defines a *system* as a functionally, physically, or behaviorally related group of elements that interact together as a whole. See Joint Warfighting Center, Joint Doctrine Series, Pamphlet 7, *Operational Implications of Effects-based Operations* (EBO) (Norfolk, VA: U.S. Joint Forces Command, November 17, 2004), 2.

³ Cited in Rinaldi, 1.

⁴ Tami Davis Biddle, *Rhetoric and Reality in Air Warfare: The Evolution of British and American Ideas about Strategic Bombing, 1914–1945* (Princeton: Princeton University Press, 2002), 163.

⁵ Gary H. Cheek, “Effects-Based Operations: The End of Dominant Maneuver,” in *Transformation Concepts for National Security in the 21st Century* (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, September 2002), 82.

⁶ J.P. Hunerwadel, “The Effects-Based Approach to Operations: Questions and Answers,” *Air & Space Power Journal* (Spring 2006), 3, available at <www.airpower.maxwell.af.mil/airchronicles/api/apj06/spr06/hunerwadel.html>.

⁷ Cheek, 74.

⁸ Steven M. Leonard, “The Elusive Silver Bullet: Effects in Army Operations,” unpublished manuscript, March 27, 2007, 3–4.

⁹ Christopher Bence, “Warden vs. Pape,” *Air & Space Power Chronicles*, February 28, 2000, 2.

¹⁰ John A. Warden III, “Thinking and Acting Strategically in Peace and War,” in *Strategische Studien I: Strategische Denken in 21. Jahrhundert*, MILAK Schrift, no. 3 (Zurich: Militäarakademie an der ETH, 2006), 25.

¹¹ Dale C. Eikmeier, *The Center of Gravity Debate Resolved* (Fort Leavenworth, KS: U.S. Army Command and General Staff College, December 16, 1998), 27.

¹² Warden uses this term now because he subsequently applied his model to the business world; the term *agent*, in his view, has a broader meaning and is somewhat preferable to *fielded forces*. See John A. Warden III, “Strategy and System Thinking,” *Air Power Revue der Schweizer Armee*, no. 3, addendum to *Allgemeine Schweizerische Militärische Zeitschrift*, December 12, 2004, 19–20.

¹³ John A. Warden III, “The Enemy as a System,” *Airpower Journal* 9, no. 1 (Spring 1995), 11–12, available at <www.airpower.maxwell.af.mil/airchronicles/api/apj95/spr95_files/warden.htm>.

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Mobile Nuclear Power *for* Future Land Combat

By MARVIN BAKER SCHAFFER *and* IKE CHANG

In this article, we introduce the concept of survivable, non-fossil fuel power-plants that can be transported to remote theaters of operation. Our rationale arises from a sense of urgency for countering two emerging threats facing land forces today: the increasing cost and vulnerability of fossil fuel extraction, refining, and distribution systems; and worldwide proliferation of highly accurate weapons launched at long standoff ranges. Our vision spotlights nuclear energy

for expeditionary U.S. Army and Marine Corps forces as opposed to sea and air because the Navy is already largely nuclear and because substantial Air Force fuel improvements face unresolved technology issues.

Our notion of land force energy survivability derives from mobility and stealth. Mobility is key in that it permits evasion of attack by coordinate-guiding weapons. Mobility also allows serving widely dispersed forces without reliance on extended power grids,

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Bladder farm at Kirkuk Regional Air Base, Iraq, provides fuel for operations

506th Expeditionary Communications Squadron (Bradley A. Lall)

fixed storage facilities, and processing plants. To complement mobile energy, we focus on land vehicles that use hydrogen fuel and electricity for power.

Transportable, mobile powerplants permit manufacture of hydrogen in theater and recharging of vehicular batteries in the field. We envision transportability by ship, barge, cargo aircraft, or airship, and theater mobility by tractor trailer truck, railroad flatcar, cargo aircraft, or airship.

Modern armies require copious amounts of energy to conduct their opera-

tions. Energy is consumed as fuel for a variety of vehicles and as electricity for illumination, communication, computing, food processing, and environmental heating and cooling. Modern military forces also are more often called upon to provide humanitarian relief in the form of electricity for civilian populations. Taken together, these energy demands argue for affordable, reliable, and survivable power under combat stress and emergency conditions.

The outlook, however, is not promising regarding any of these issues. Due to

dwindling reserves of reliable, inexpensive oil and competing worldwide demand, fuel costs have already begun to skyrocket, and responsible economists and geologists predict that they will go significantly higher. Moreover, proliferation of guided bombs and missiles threatens to make stationary refineries, powerplants, storage vessels, generators, and power grids prime targets with low expected survivability in future regional conflicts.

Overwhelming reliance on foreign oil poses an additional dilemma. The entire national security system, including the political leadership, military forces, and Intelligence Community, relies on fossil fuel to operate. With 95 percent of proven oil reserves controlled outside of North America,¹ this poses a national risk that is monotonically increasing.

To an alarming extent, then, the future has *already* arrived. Intensive study, planning, and early action to resolve this dilemma are warranted.

in its latest budget request, the White House added a \$2 billion surcharge for rising fuel costs

Motivation

The debilitating economic impact of \$100+ per barrel for oil and \$4+ per gallon for gasoline on the U.S. civilian population is well known. Such prices undermine military operations as well. U.S. forces currently consume 340,000 barrels of oil daily, 1.5 percent of all the oil used in the country.² In 2006, the Department of Defense (DOD) energy bill was \$13.6 billion, 25 percent higher than the year before. Petroleum costs have subsequently increased more than 50 percent. In its latest budget request, the White House added a \$2 billion surcharge for rising fuel costs. It is conceivable that in coming decades, petroleum and natural gas will be so expensive that fuel will impinge on vehicular-intensive training exercises and on the acquisition of advanced equipment.

The U.S. military must find a viable substitute for fossil fuel. Fuel abundance is critical on the battlefield since it enables maneuverability. It is well recognized that lack of fuel can impose severe limitations on operations. There are numerous historical examples:

- George Patton's 1944 drive for Germany stalled because Dwight Eisenhower had to

Soldiers hook fuel blivets to C-47 Chinook for transport to forward elements



U.S. Army (M.W. Woods)

divert fuel to British forces under Bernard Montgomery.

- As a consequence of interdiction in the Mediterranean Sea, German forces under Erwin Rommel literally ran out of gas in their 1943 North Africa campaign.

- The 1944 drive by U.S. forces up the Rhone Valley in France was slowed by fuel shortages.

- The Luftwaffe was grounded late in World War II due to lack of fuel.

- Because of fuel scarcity, German pilots were sent into combat in the last 9 months of World War II with only a third of the training hours actually required.

Wartime survivability of infrastructure for fuel extraction, manufacturing, and distribution has reached a critical state with the worldwide proliferation of satellite-guided standoff missiles and bombs. As a case in point, Russia recently introduced the Kh-38MK air-to-surface missile. It uses GLONASS (Global Navigation Satellite System) satellite navigation, equivalent to global positioning system (GPS) with accuracy of better than 35 feet, and has a standoff range of 25 miles.³ More ominously, threats with longer range also exist, typically 5,000 to 8,000 miles for intercontinental and submarine-launched ballistic missiles, 700 miles for cruise missiles, and 400 miles for short-range ballistic missiles.⁴ Currently, most of these systems employ comparatively inaccurate inertial guidance, but many are being upgraded to satellite navigation with performance equivalent to the Kh-38MK.

Since attack missile warheads have damage areas of 5,000 to 7,500 square feet, we can estimate the benefits of random movement for a mobile reactor. Calculations are summarized in figure 1, in which damage probability is plotted against displacement. When the displacement is 0, the damage probability is more than 0.9. However, when the displacement is 600 feet or more, the damage probability is less than 0.009 for either warhead extreme.

Clearly, mobility acts as a powerful countermeasure against coordinate-guiding munitions. Recent history reinforces the premise:

- During the first Gulf War (Operation *Desert Storm*), the only Iraqi Scud missiles that survived the U.S. air assault were of the mobile

(wheeled) variety. These missiles later rained on Tel Aviv and Saudi Arabia.

- A 1991 study by Air Force Chief of Staff General Merrill McPeak revealed the challenge of targeting mobile targets: "Efforts to suppress Iraqi launches of Scud missiles during *Desert Storm* ran into problems. Mobile launchers proved remarkably elusive and survivable. Objects targeted were impossible to discriminate from decoys (and clutter) with radar and infrared sensors."⁵

- In the 2006 war in Lebanon, the Israeli air force could not stop more than 1,000 Hizballah truck-mobile rockets from striking Israeli urban areas.

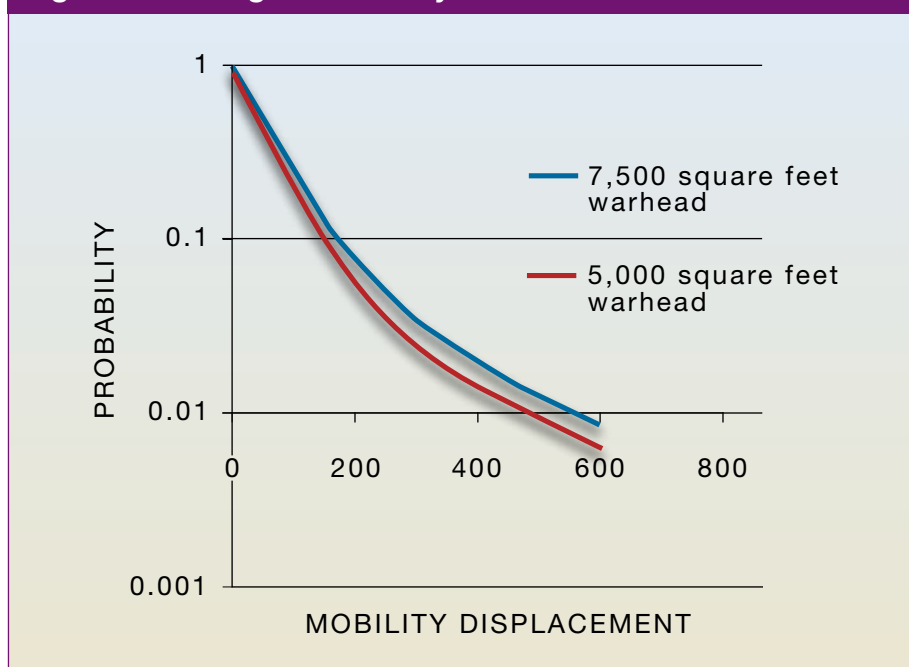
Abundance of fuel is critical for success in big and small wars. U.S. forces in Iraq consume 1,680,000 gallons daily. The famous flanking maneuver during Operation *Desert Storm* burned 4.5 million gallons of fuel per

tice has already begun, but at best it is an act of expedience that reduces reliance on foreign sources. Blended fuels are not significantly less expensive than petroleum, and they emit similar kinds and amounts of pollutants. Blends and synthetics also suffer from the same vulnerabilities as fossil fuels in their dependence on fixed refining and distribution infrastructure.

over the longer term, military land fleets will consist of mixtures of electric vehicles, fuel-cell vehicles, hydrogen vehicles, and hybrids

Over the longer term, military land fleets will consist of mixtures of electric vehicles, fuel-cell vehicles, hydrogen vehicles,

Figure 1. Damage Probability of Mobile Reactor



day. After 5 days of combat, the maneuver required 70,000 tons of fuel.⁶

Prudence dictates development of abundant military power sources that are survivable, independent of petroleum, and require little fixed infrastructure to serve dispersed forces.

Candidates for Vehicular Fleet

In the near term, it is likely that military land vehicles will be powered by blends of conventional and synthetic fuels. This prac-

and hybrids. All require energy rechargers or hydrogen fueling. We propose to provide both with theater-based mobile nuclear facilities.

Most of the research and innovation in vehicular fuel technology is funded by major automobile manufacturers. To gain insight into the options for military vehicles, we briefly survey the approaches taken by the civilian automotive industry.

Battery-powered Electric Vehicles.

Battery-powered all-electric vehicles are currently available commercially but are

notoriously expensive, underpowered, and marginal in practicality. Their batteries require substantial improvement for military use. Typical vehicle ranges without recharging are 50 to 100 miles, and speeds are low (less than 50 mph under good road conditions). Intensive research is being undertaken to improve that situation, but solutions appear to be 10 years away. Current battery candidates include lithium-ion (many variants), zinc-air, iron-nanophosphate, and titanium dioxide-barium titanate.

Hybrid Electric-Internal Combustion Vehicles. Hybrids are the near-term implementation of electric vehicles. They combine battery-powered electric motors for low-speed operation and hydrocarbon-fueled internal combustion engines for higher speeds. The result is a fuel-efficient vehicle, often delivering 35 to 45 mpg but requiring recharging every few hundred miles. Dozens of commercial models exist.

Military Services are pressuring developers to provide near-term hybrid vehicles suitable for combat operations. The technology appears sufficiently mature to expect implementation as early as 2010. However, hybrids are again only an expedient solu-

tion that improves road mileage. They do not reduce costs and only marginally reduce dependence on foreign fuel sources.

Fuel Cell-Powered Vehicles. In fuel cell vehicles, hydrogen is chemically reacted with airborne oxygen to produce electricity and water. The hydrogen is channeled as ions through membranes, called Proton Exchange Membranes (PEM), and then combined with ionized oxygen. The electrons created when the hydrogen is ionized are directed through a circuit, enabling electricity to drive a motor.

Fuel cells are of relatively low potential. To be useful in powering vehicles, they must be assembled in stacks. However, fuel cell stacks are costly. The Department of Energy goal for large-scale fuel cell production is \$30 per kilowatt (kW). A 100-kW stack equivalent to 134 horsepower would cost \$3,000.

Currently, there are only a small number of fuel cell vehicles on the road. The 2001 Mercedes-Benz F-Cell had a PEM-driven 65-kW induction motor. With a range of 110 miles, it got 26 miles per pound of hydrogen. More recently, Honda fielded the FCX/FCX-Clarity and Chevrolet fielded the Equinox. They have ranges of 180 to 270 miles and achieve speeds of 90 to 100 mph with 107 to

134 horsepower, all respectively.⁷ By 2015–2020, there should be many more of higher performance and lower price.⁸

Reformer-fed Fuel Cells. Most fuel cell vehicles use gaseous hydrogen stored in high-pressure tanks. However, it is also possible to use liquid fuels such as methanol stored in conventional tanks. The latter need reformers—processors that release hydrogen. The reformer catalytically converts fuel into hydrogen and carbon dioxide. Hydrogen drives the fuel cell; carbon dioxide and water vapor are released to the atmosphere. Reformer-fed fuel cells achieve 300 to 400 miles per tank. However, they are complex, costly, and require additional maintenance. It is not clear which method, pure hydrogen or reformer-produced hydrogen, will prevail.

Hydrogen Internal Combustion Engine Vehicles. It is also possible to fuel internal combustion engines with gaseous or liquid hydrogen. One technique is to store the gaseous form in onboard tanks at 5,000 pounds per square inch and at room temperature in quantities sufficient for about 200 miles. Research is under way to extend this to higher pressures and even more mileage, as well as to other methods of storage.

Ohio Army National Guard Soldiers operate refueling point during training



196th Mobile Public Affairs Detachment (Zachary R. Fehrman)

Military Sealift Command fleet replenishment oiler USNS Pecos during underway resupply



U.S. Navy (Dustin Kelling)

In 2001, BMW unveiled a cryogenically cooled liquid-hydrogen sedan, the 750hL. This prototype had a 330-cubic-inch, 12-cylinder engine, and a 36-gallon fuel tank. Since then, BMW has fielded several dozen experimental sedans in the Hydrogen 7 Series. Two versions are available: a monofuel system with an engine tuned for only hydrogen, and a bifuel configuration with gasoline as the other fuel. Volume production of liquid hydrogen-fueled vehicles, however, has not been undertaken to date.

Alternative Methods for Storing

Hydrogen. Over and beyond onboard tanks, there are a variety of additional techniques for storing hydrogen and subsequently using it as fuel. The most thoroughly researched involves the use of metal hydrides that have the ability to adsorb hydrogen under pressure and reversibly release it upon heating. Typical hydrides are magnesium-, lithium-, or aluminum-based, and they require hydrogen compression to 3 to 30 times the air pressure at sea level. Overall, hydride storage of hydrogen has not yet proved practical. Hydrides are toxic and volatile, and their storage containers are heavy and expensive.

Another storage technique exploits the use of ammonia. It releases hydrogen in a catalytic reformer with no harmful waste

tion has not been achieved, however, because materials capable of long-term exposure to strong acids at high temperature have not been demonstrated.

■ Continuous steam-iron process (1,470°F).

The basic reaction is the decomposition of steam by iron oxide to yield hydrogen and a higher oxidation state of iron. The process takes place in the presence of producer gas obtained from coal. However, long-term utility of the process is questionable due to extensive air pollution.

■ Coal gasification. Finely ground coal is reacted with steam and oxygen at high temperature, the reaction producing hydrogen and carbon dioxide. The process is similar to methane-steam reforming but is substantially more polluting and less efficient. Impurities include sulfur-containing ash and hydrogen sulfide.

The most practical option with potential for in-theater mobility is electrolysis of ionized water. The inefficiency of electrolysis can be alleviated somewhat by conducting the process at high temperature (1,000–1,400°F) and high pressure (450 pounds per square inch).⁹ Methane-steam reforming is also feasible, but the long-term scarcity of methane weakens the option. Thermo-chemical decomposition

mobility, low pollution, and availability to override efficiency and low cost.

Assuming 5 megawatts (MW) of electricity is available for powering electrolysis and heating water, enough hydrogen can be manufactured to fuel more than 400 vehicles per day.¹⁰ This involves production of 20,000 gallons of liquid hydrogen daily. The electrolysis unit can conceptually be mounted on a flatbed truck with dimensions 50 feet long by 8 feet wide by 10 feet high (see figure 2).

Candidates for Mobile Reactors

The requirement to be transportable imposes severe design restrictions. The reactors must be relatively small to fit into a military transport aircraft. The weight constraint of the C-5A/B Galaxy is 90 to 140 tons and the size limitation is 19 feet by 13.5 feet by 100 feet. As an alternative, the proposed Defense Advanced Research Projects Agency Walrus Hybrid Ultra Large Aircraft-type airship had a conceptual capacity of 500 to 1,000 tons of cargo.¹¹ Transportability also implies a degree of modularity so the reactor can be loaded as an integral unit.

Mobile reactors impose an even more extensive set of constraints. Mobile nuclear reactors would preferably have:

- closed cooling and moderating systems
- nonhazardous and desirably inert
- helium, carbon dioxide, heavy water, liquid metals acceptable; liquid salts deemed not suitable due to hazard potential
- self-contained operations with minimal heat or waste effluents
- largely robotic operation
- inherently safe operation

volume production of liquid hydrogen-fueled vehicles has not been undertaken to date

discharge. Ammonia is conveniently storable at room temperature and atmospheric pressure when dissolved in water. Under pressure, it is suitable as liquid or gaseous fuel in modified internal combustion engines.

of water is considered too hazardous, and the two processes extracting hydrogen from coal are not conducive to mobility and are highly polluting. In selecting high-temperature water electrolysis, we therefore choose to allow

Manufacturing Hydrogen

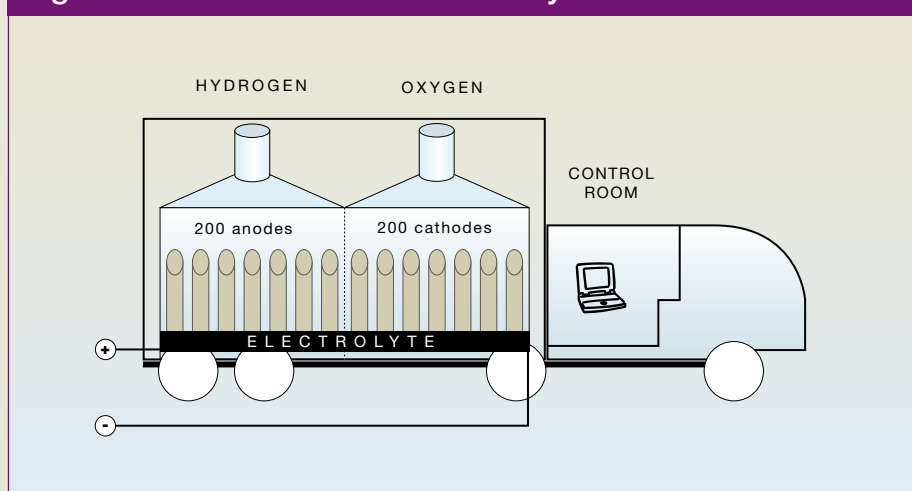
Alternative commercial methods for manufacturing hydrogen include:

■ Room temperature electrolysis of water. Electrolysis is used to separate hydrogen and oxygen, the efficiency being about 70 percent.

■ Methane-steam reforming (1,650°F). Steam reforming of natural gas is the method most commonly used commercially. A waste product is carbon dioxide. This high-temperature process lends itself to the extreme heat available with gas-cooled nuclear reactors.

■ Thermo-chemical decomposition of water (930–1,470°F) catalyzed by sulfurous acid. A potential thermo-chemical process is the sulfur trioxide cycle. Commercializa-

Figure 2. Schematic Mobile Electrolysis Unit



- negative void coefficient (that is, the power reduces when the reactor core temperature goes up)

- passive cooling (that is, loss of coolant will not damage the fuel; the core temperature eventually cools due to radiation and convection); these characteristics preclude Chernobyl and Three Mile Island-type nuclear accidents

- resistance to terrorist attack. Tristructural-Isotropic (TRISO)-fueled reactors are attractive in this respect¹²

- resistance to nuclear weapon proliferation possibilities

- breeder reactors produce plutonium and violate U.S. policy

- breeder reactor safeguards to prevent fuel pilfering, however, are possible and have been employed in other countries¹³

- a convincing waste disposal configuration

- resistance to explosive attack.

We have identified four reactor concepts¹⁴ considered appropriate for a field army, although further refinements are needed for added mobility. As we will later observe, these specific designs would have to be scaled down to conform to theater mobility constraints.

The *Remote-site Modular Helium Reactor* (RS-MHR) is a gas-cooled reactor proposed by General Atomics. It uses TRISO

fuel in batch operation and has most of the desirable characteristics of a mobile reactor. It is passively safe, secure from fuel theft and waste pollution, and resistant to terrorist and explosive attacks. Two reactors have been investigated by General Atomics, rated at 10 and 25 megawatts electric.

The *Multi-mobile Reactor* (MMR) concept involves an array of self-contained, factory-built, transportable gas-cooled modules proposed by Sandia National Laboratories. Although many details are lacking, each module is appropriate for mobility, and the power is compatible with the requirements needed to fuel field army vehicles.

the requirement to be transportable imposes severe design restrictions

The *High Temperature Test Reactor* (HTTR) is similar in concept to the RS-MHR but somewhat larger (30 MW). It is described separately because it has been operational in Japan since 1998 whereas the RS-MHR is conceptual. The HTTR is specifically configured to couple to a steam-methane hydrogen reforming plant. It would have to be scaled down to achieve mobility in anything significantly smaller than a Walrus airship.

The *Small, Sealed, Transportable, Autonomous Reactor* (SSTAR) is a fast breeder reactor concept that is passively safe, has helium as coolant in one version, and is tamper-resistant. In principle, it would overcome U.S. policy prohibiting breeder reactors. The system has a 30-year lifetime, and all the waste products are sealed inside. Livermore Laboratories has designed a 10-MW version weighing 200 tons. That would be transportable in a scaled-down Walrus or on a truck, but it should also be possible to design a smaller system. A version scaled to 90 to 100 tons would have estimated dimensions of 38 feet in length by 7.5 feet in diameter and a power of 4.5 to 5 MW.

Operational Concept

We propose to support a Stryker Brigade (nominally 3,600 Soldiers) with one mobile power reactor and a mobile hydrogen electrolysis unit. Each brigade has about 400 vehicles, 350 of which are light-assault vehicles. The 4.5- to 5-MW reactor could provide enough hydrogen and electricity to fuel 400 vehicles daily.

Since there are currently 33 combat infantry and armor/cavalry brigades, we propose to field 100 reactors and 100 electrolysis units including spares. These mobile facilities would replace traditional Forward Area Refueling Points (FARPs). Descriptively, we call them "nuclear FARPs." The mobility concept is to move the nuclear FARP every day or so under battlefield conditions. These will be movements of hundreds of feet by road. Movement between FARPs, however, would be by C-5A/B or by airship.¹⁵ Such procedures, admittedly needing refinement, underlie the survivability of a nuclear FARP.

We assume air and space superiority conditions that preclude the use of enemy manned aircraft and unmanned combat air vehicles. That leaves only long-range satellite- and terrain-guided missiles as viable methods of standoff attack.¹⁶ Mobility ensures survivability against such fixed-coordinate missiles. Note that it will be necessary to shield the heat signature produced by the reactors; otherwise, they will be vulnerable to heat-seeking guidance. Thermal shielding can be achieved with overhead canvas and blowers to disperse heat peripherally. Overhead canvas would also enable a degree of camouflage.

The U.S. Army has had extensive experience with transportable reactor technology. From 1968 to 1976, a 45-MW nuclear reactor

All Army Future Combat System manned ground vehicles are hybrid electric



U.S. Army TARDEC (Paul Tremblay)

on the barge *Sturgis* provided power for the Panama Canal community.¹⁷ Other portable nuclear reactors were operated in Wyoming, Greenland, and Antarctica.

It may also be possible to provide fleet-wide monitoring of the reactors and electrolysis units by satellite to permit cost-saving, manpower-efficient troubleshooting.

Strategic Implications

Strategic implications of a mobile and survivable fleet of vehicles independent of fossil fuels would be profound. They include:

- fielding combat vehicles with affordable, self-sufficient sources of abundant fuel that do not contribute to atmospheric pollution
- providing fuel to a dispersed fleet in a survivable, sustainable manner
- eliminating vulnerable in-theater, single-point, fixed-location sources of fuel manufacture and distribution
- diminishing the logistic footprint associated with hauling fuel tonnages over thousands of miles to supply an operating theater military force
- developing a mobile testbed for modular nuclear-powered electricity to provide alternatives for the fossil fuel crisis now gripping the world economy
- providing a means to supply low-cost power in support of humanitarian missions around the world.

The cost of fossil fuels combined with the low survivability of fixed extraction, refining, and distribution systems puts the Army's land-based fleet of combat vehicles in jeopardy for future conflicts. The Army should define a new fleet of vehicles powered by a combination of electricity and hydrogen. Preferably, this fleet would be energized by theater-mobile nuclear reactors and theater-mobile hydrogen manufacturing facilities. Appropriate technology for these vehicles, reactors, and manufacturing facilities is just beginning to become available commercially.

Electrically powered vehicles with military potential are not currently available but may become practical in a decade or so. However, fuel cell-powered vehicles, hydrogen-powered vehicles, and hybrids are all approaching commercial viability. Military versions can be expected in the 2010–2020 timeframe. The Army needs to define its requirements and plan for the future fleet in

terms of survivability, affordability, and independence of fuel sources.

Mobile nuclear reactors in several varieties can be postulated. They weigh 90 to 100 tons and can be transported on a C-5A/B transport aircraft or a Walrus-type airship derivative and locally on a flatbed truck. They produce power of 4.5 to 5 MW, sufficient to provide hydrogen and electricity to fuel about 400 vehicles daily. One appropriate type of hydrogen manufacturing facility is a high-temperature electrolysis unit. It also can be made mobile and can be powered by a mobile nuclear reactor.

The general benefits of the mobile fueling system postulated are profound and revolutionary. They provide for:

- a lighter, more mobile military
- streamlined logistics
- more ammunition resulting from reduced fuel tonnage
- minimized energy supply chain
- energy with national self-sufficiency
- reduced energy infrastructure
- sustainability
- increased survivability
- increased affordability
- greater tactical efficiency.

Detailed planning for the new land vehicle fleet is needed. It should include specifications for land vehicles, mobile reactors, mobile hydrogen manufacturing facilities, and transport aircraft, airships, and trucks. A concept of operations needs to be developed in accordance with military standards.

Mobile, affordable, and reliable power sources based on nuclear power have the potential to permit viable operations of the Army for the foreseeable future. The concept warrants extensive study by the Department of Defense and the Department of the Army.

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⁴ Arms Control Association, "Worldwide Ballistic Missile Inventories," fact sheet, September 2007, available at <www.armscontrol.org/factsheets/missiles.asp>.

⁵ Norman Friedman, *Desert Victory: The War for Kuwait* (Annapolis: The Naval Institute Press, 1991).

⁶ William G. Pagonis and Jeffrey L. Cruikshank, *Moving Mountains: Lessons in Leadership and Logistics from the Gulf War* (Cambridge: Harvard University Press, 1992); John Dumond, *Velocity Management: The Business Paradigm that has Transformed U.S. Army Logistics* (Santa Monica, CA: RAND, 2000).

⁷ Dawn Chmielewski and Ken Bensinger, "Test the Waters for Hydrogen Cars," *Los Angeles Times*, June 15, 2008.

⁸ "How They Work: PEM Fuel Cells," available at <www.fueleconomy.gov/feg/fcv_PEM.shtml>.

⁹ "Electrolysis: The Electrolysis Process," available at <www.global-hydrogen-bus-platform.com/Technology/HydrogenProduction/electrolysis>.

¹⁰ Matthew L. Wald, "Hydrogen Production Method Could Bolster Fuel Supplies," *The New York Times*, November 28, 2004.

¹¹ The Walrus Hybrid Ultra Large Aircraft was terminated in 2007. A smaller scale version is planned. Note that Walrus in principle offers 12,000-mile transportability in less than 7 days, comparing favorably with sealift (approximately 30 days) but unfavorably with the C-5A/B (1–2 days).

¹² Tristructural-Isotropic (TRISO) fuel is used in a number of high-temperature gas reactors. Compared to the fuel in pressurized water reactors, TRISO is proliferation resistant and offers a self-contained waste storage configuration. It is also robust to explosive attack; exposure of radioactive materials to the environment would be minimal and difficult to exploit in a dirty bomb.

¹³ Breeders are legally producing electricity in France, Britain, Japan, China, and Russia.

¹⁴ For an entry-level discussion of reactor concepts, see Marvin Baker Schaffer, "Nuclear Power for Clean, Safe and Secure Energy Independence," *Foresight* 9, no. 6 (2007).

¹⁵ The C-5 Galaxy with modernization improvements is expected to be operational well into the 21st century. See "C-5 Galaxy," available at <www.af.mil/factsheets/factsheet.asp?id=84>.

¹⁶ To a lesser extent, the same mobility argument applies to survivability against short-range mortar and rocket attack. Because of their relative inaccuracy, they are scatter weapons with inherently low effectiveness.

¹⁷ Robert A. Pfeffer and William A. Macon, Jr., *Nuclear Power: An Option for the Army's Future*, available at <www.almc.army.mil/alog/issues/SepOct01/MS684.htm>.

Teaching Strategy in the 21st Century

By GABRIEL MARCELLA and STEPHEN O. FOUGHT

With a good strategy, even the weak can succeed; with a weak strategy, even the strong will struggle.

Strategy is, and will continue to be, the linchpin to military success. Unfortunately, professional military education (PME) does not develop strategists very well.¹ This long-standing deficiency needs to be corrected. The war colleges are the proper institutions to take on the task, even though their current approaches are more descriptive than prescriptive in teaching strategy. We need to reverse that emphasis.

The first step is to remove self-generated obstacles, beginning with the concept and definition of strategy.² Strategy is stratified roughly according to the major participants within each partition: grand strategy (and its

scion national security strategy) is artful and the purview of kings and Presidents; military strategy, while subservient and linked to grand strategy, is more mechanical and has its roots in military science; tactics, which also stem from military science, are quite prescribed and situation-specific and belong to the military—in particular, the company grade ranks.³ Somewhere along the line we get theater and/or campaign strategy, which we attribute to the generals and, eventually, operational art.⁴

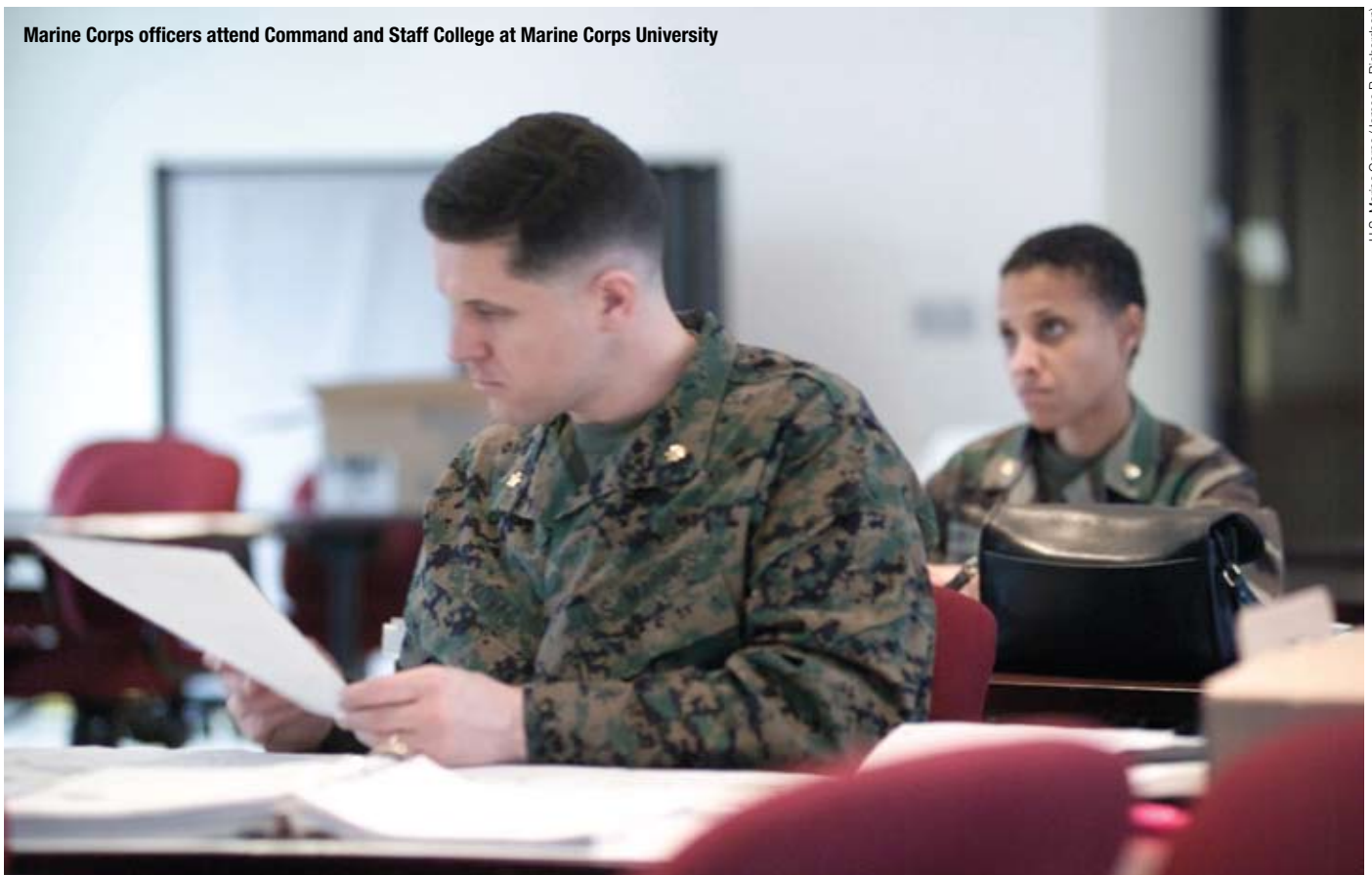
This partitioning is comfortable, perhaps because it is attuned to modern Western idealistic portrayals of the division of labor between civilian political and military leadership, and even between domestic and foreign policy. By the same token, it is academically appealing because it encourages independent examina-

tion by political science or military history scholars without forcing the two disciplines to integrate their research, results, or teaching.

This approach is nicely suited for teaching *about* strategy. However, it is not reflective of the real world and may be a dysfunctional, self-fulfilling prophecy. That is, by partitioning the definition so carefully into levels to serve theoretical or academic purposes, we come to believe that strategy is actually partitioned in that manner in the real world—and thus treat grand strategy, military strategy, theater strategy, campaign strategy, and even tactics as separate and distinct when they actually are similar and can be researched and taught by way of their similarities rather than against a backdrop of assumed divisions.

After all, in the real world of war and peace, generals are heavily involved, along with

Marine Corps officers attend Command and Staff College at Marine Corps University



U.S. Marine Corps (James R. Richardson)

senior statesmen of the national security team, in what we have labeled grand strategy. Political leaders are similarly engaged in military strategy—one does not need a dissertation on Vietnam, Operation *Desert One*, Lebanon, or even the Gulf Wars to appreciate that conclusion. In the field, those lieutenants and captains who are said to be engaged in tactics firmly believe that they are developing strategy (albeit with a limited horizon)—and, if asked, might say they believe their platoons, flights, or department members are executing tactics. Indeed, in practice, every level believes (and, we think, *accurately* believes) that it is involved in creating strategy, subject to limits to their horizon imposed from above (and beyond).⁵

In a similar manner, the term *policy* has been malpartitioned, and along the same lines as the partitioning of strategy. The current use of the term eventually establishes a difference between policymakers and operators that divides, roughly, the politicians from the generals.⁶ Yet in reality, “operators” do a lot of policymaking and policymakers get their hands deep into the well of operations—and each shapes the other to a great degree.

One can clear away all of the aforementioned dirt, debris, and confusion about strategy, and policy, with the following universal definition: *Strategy is the art of applying power to achieve objectives, within the limits imposed by policy.*

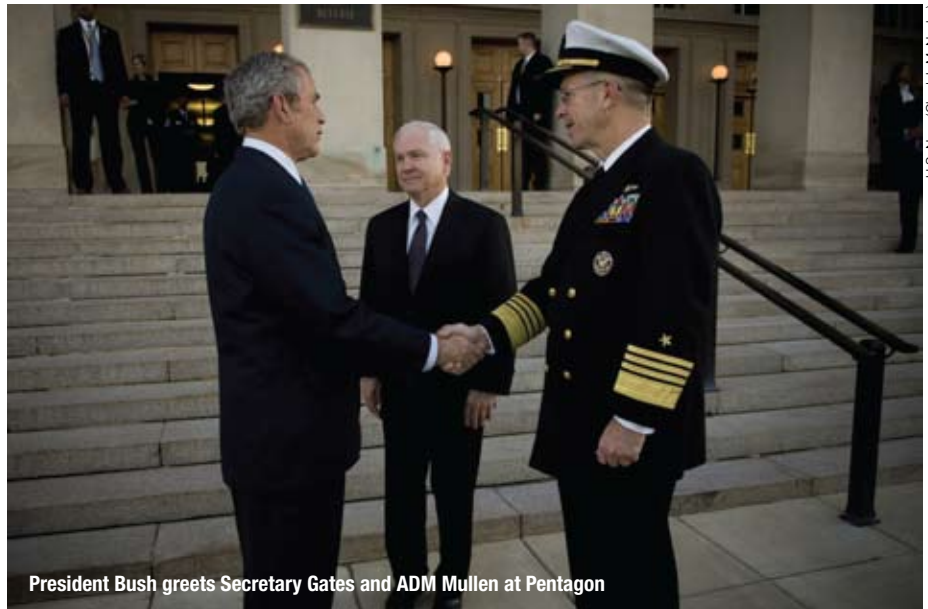
Strategy exists and is developed at every level. It is developed with the purpose of connecting political purpose with means, which are always constrained. Absent constraints, there is no need for strategy. Limits to freedom of action exist at every level and must be accounted for by those who develop strategy. These limitations are, collectively, called policy. When one develops strategy, one develops limits (hence policy) on other levels—certainly on levels below, quite often on collateral levels, and at times on levels above. Sometimes these limits are imposed purposefully and sometimes they are generated quite by accident—the latter being what Carl von Clausewitz might have called the “fog of strategy.”

Perhaps the most important aspect of the proposed definition is that strategy is common to every level of the organization (and activity). However, the variables that

comprise the challenge of developing strategy are not. In the arena where company-grade officers are likely to be involved in developing and executing strategy, the variables are fewer and quite likely to be known with a reasonable amount of fidelity and accuracy, especially in terms of objectives, available means, and policy limits. At this level, the variables on the “means” side of the process will probably be under the control of the group that must develop and execute strategy. By the same token, the duration or horizon (or both) of the strategy is more likely to be short.

strategy is essentially the same—one has to meld political purpose with means, within the boundaries of the situation.

The bottom line is that, much like other human behaviors, the fundamental behavior of developing strategy is similar in all situations, but the situations differ in terms of the variables. Thus, teaching strategy is parallel to teaching leadership—the fundamentals of leadership are the same, no matter where one is in the organization or the situations faced. One can, and perhaps must, build on prior skills as one rises in the organization and



President Bush greets Secretary Gates and ADM Mullen at Pentagon

As one ascends the organizational ladder or engages in more expanded or protracted conflicts, more variables enter the process—in terms of goals, means, and policy. For the same reason, these variables are less

takes on more challenging leadership tasks. Teaching strategy should be no more difficult or complicated than teaching any of the other subjects addressed by the war colleges or, in fact, across all of PME.

strategy is the art of applying power to achieve objectives, within the limits imposed by policy

likely to be well understood, the means are less likely to be under the control of those who would develop/execute strategy, and the time dimension is likely to be longer (either in terms of the time period in which the strategy must be executed, or the likely period where the strategy might have an effect on other areas). The limits are also likely to be more and more complicated, and in some cases even contradictory. But the process of forming

Strategy at All Levels

At the company-grade schools, strategy ought to be taught and practiced around scenarios that are fairly well defined. Ends ought to be spelled out in reasonable detail (and probably focused on a specific battlefield and the well-defined time horizon). Means (resources such as manpower, offensive and defensive capability, command relationships, intelligence, and so forth) should be reasonably well bounded. Policies (limitations) should be spelled out and reasonably consistent and understood. The physical situation (terrain) should be well described and

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ADM Mullen addresses 2008 graduates
of U.S. Army War College



U.S. Air Force (Adam M. Stump)

probably limited, as should the political variables (alliances, coalitions). The enemy should be defined and the intelligence should be rather pristine. Students should be expected to generate in-the-court solutions, but given opportunities to innovate—to push the limits, use resources in creative ways, and/or define ends as appropriate. There should be freedom of action within well-described scenarios. At the company grade and subsequent levels, the scenarios would include all of the instruments of national power and a complexity and uncertainty appropriate to the scenario.

Intermediate Service schools should introduce uncertainty into each dimension as well as increase the number of dimensions. The mid-rank schools should challenge students to develop strategy in situations where the means are not entirely under their control (such as needing resources from coalition partners in exchange for changes in the rules of engagement or beyond). Purpose, means, and policies might be mildly contradictory (for example, take the military objective but minimize casualties). There should be a challenge to contain the battlefield (keep the conflict from expanding). The enemy might not be well described, or even known, at the outset. Intelligence should not be pristine.

“Political” intervention would be introduced (for instance, “military” decisions in overseas conflicts driven by domestic politics). Moral hazard and ambiguity should be introduced to challenge decisionmaking. Ends might change as time and events move ahead. Freedom of action, and consequent innovation, would be not only encouraged, but also expected.

moral hazard and ambiguity should be introduced to challenge decisionmaking

War colleges (and beyond) should expand the number of variables and confound the existing variables. For instance, consider situations where the chain of command is obscure, overlapping, and contradictory, where resources are transitory and objectives either vague or in motion, and where intelligence is yet to be gathered, at best. The point is that the problem is essentially the same at every level: forging the many variables into a coherent plan of action with the available set of resources, mitigating risks where possible, and connecting political purpose with means within the boundaries set by policy. Strategy is the common process, and it can and should

be taught at every level. What differs is the number of variables, the characteristics of those variables, and the internal/external relationships among them.

Case Studies Approach

The second step in teaching strategy is to shape the curriculum. Students in PME are mature and accomplished. They are confident, capable, impatient with theory, and distrustful of history. They learn best by being given problems to solve, being allowed to flail against those problems, and absorbing professional and other scholarly wisdom when they are convinced they need it, and not before. A strategy for teaching strategy begs for a case study approach around a current and relevant curriculum that is prepared and executed by a multidisciplinary faculty steeped in practical experience. Neither the curriculum nor the faculty comes out of thin air nor, for the most part, out of conventional academia; they almost certainly have to be created out of whole cloth. The following points seem axiomatic to a successful strategy for teaching strategy.

1. Case studies should dominate the curriculum. Case studies force students *into* the problem; they put a face on history and

bring life to theory. Case studies should pace the curriculum, not simply be appended here and there. Historical case studies abound, as do examples from business and law schools. But in the long run, the best case studies will be developed internally and involve contemporary issues in national security. They will be written around the military commanders, not a chief executive officer, not a trial attorney, and not a social service organization.

2. The organizing principle should be regional studies, not military or diplomatic history, not political science, not great power politics, and most certainly not a loose collection of electives whose primary reason for existence is faculty interest rather than student needs. By using regional studies as a framework, the curriculum can easily incorporate various aspects of strategy, diplomacy, economics, the military, and so forth, as well as all elements of the interagency process. Strategies can be developed and tested against the real world, measured against existing engagement strategies and circumstances, and be immediately useful.

3. Within this case study/regional study framework, the pace and content of courses need to be adjusted to emphasize problem-solving to include the writing of strategy. This will require more time for students to research, analyze, and write. Of all the forms of learning, writing is second only to actual experience. Problemsolving tasking should be introduced early in the curriculum and completed at logical intervals along the way. For example, students could be tasked to develop strategy for conflict termination and post-conflict reconstruction or for dealing with the challenge of failing states. The intellectual challenge will have them evaluate and apply the gamut of strategic principles from realism to idealism, center of gravity, just war, policy by other means, the integration of the instruments of national power, and so forth.

4. The lecture/seminar-centric model for teaching should yield its dominant grip on the curriculum. Lectures are an efficient way to impart significant amounts of common information to a broad audience. Seminars promote bonding and mutual learning—qualities essential to cohesive military organizations. Interactive learning can bring out the best among seminar mates. But these methods are not the end-all, be-all to teaching methods—other methods exist and the war colleges should be open to considering them. In particular, the task of teaching strat-

egy may not lend itself to a group approach because strategy formulation requires deep, often prolonged considerations of sometimes narrowly focused topics—an approach that does not sit well in a seminar environment. The war colleges should rebalance seminar-based pedagogy with scheduled time for individual study and one-on-one, or very small group, interaction with professors, scholars, and mentors.

Importance of Faculty

These proposed curriculum changes are major. Part and parcel with changes in the curriculum come changes in the faculty, which translate into faculty development. The faculty development initiatives that we propose spill over into major changes on the academic schedule to allow faculty time to develop the curriculum and create/maintain their own expertise as well as prepare for the immediacies of teaching. Implementing these initiatives will require a different form of faculty preparation because the pedagogical emphasis would be on analyzing problems and developing strategy while maintaining a sufficient foundation in theory. Such an approach to teaching would be demanding on the faculty's creativity because it is a different way of imparting learning.

Accordingly, it would require moving away from a curriculum sequence that is heavy in continuous seminar instruction and student recitation. Because of the 10-month accelerated master's program at the war colleges, the faculty maintains a relentless pace more in keeping with the training culture of the military than with the educational culture needed for strategic pedagogy. The pace is hard to sustain, notably for new instructors who must master a vast amount of multidisciplinary material and the Socratic method of pedagogy to be effective. These considerations reinforce our point of departure that the faculty owns the curriculum. To build a faculty capable of executing a strategy for teaching strategy, war colleges should:

1. Send faculty to periodic professional development tours in the policy and strategy communities to gain experience and confidence in strategizing—in making the link between policy, strategy, and operations. Such tours would also benefit the agency, bureau, or office in which the tours take place, thereby projecting the prestige of the colleges. The payoffs in development are extraordinary; faculty will learn how to link strategic theory

with practice and understand the boundaries that policy places on means or, as is common, the mismatch between policy and means caused in either direction. They will also gain a respect for the plenitude of human and institutional variables that constitute the fog of making strategy.

2. Develop a senior mentor program. Invite creative strategists to make presentations to students on the intellectual process for making strategy in given historical circumstances. Currently, such presentations by senior military officials address more the "what" (often a PowerPoint briefing on operations) than the "how" of strategy. An effective initiative is to establish senior mentors from the retired and perhaps even Active-duty ranks, as well as civilians (both U.S. and foreign), who would provide wisdom on how to make strategy. For senior leaders, the occasional immersion in a war college seminar would provide the opportunity to influence the successor generation of officers. Each seminar should be assigned a civilian and military senior mentor.

the pedagogical emphasis would be on analyzing problems and developing strategy while maintaining a sufficient foundation in theory

3. Create a Ph.D. program in strategy. Despite the excellence of American graduate education and various distinguished doctoral programs in history, political science, and international relations with emphasis on security studies, few deal with strategy. Strategy is many disciplines fused into art and science, with emphasis on the former. The Royal Military College of Canada in Kingston, Ontario, has a superb Ph.D. in War Studies, which has produced high-quality practitioners and scholars in matters strategic.⁷ The war colleges have the mandate, resources (such as faculty and library), and potential market to put together a small, quality doctoral-level program in strategy, which would capture the principal disciplines the curriculum deals with. Such a program would engender a level of academic excellence that the faculty would aspire to, as well as attract scholars of high quality to the faculty. Because 3 years are normally required to complete the Ph.D., which is difficult for military careerists to accommodate, the program could recruit civilian students on a

tuition basis. The program would fill a serious void in American graduate education. Finally, because the various war colleges have unique resources and similar mandates, they could creatively combine efforts into a consortium to support the Ph.D. program.

The Path and Payoff

These are broad-based changes in both the curriculum and the faculty. Organizational change is difficult, particularly in large, mature, bureaucratic organizations, and especially when those organizations believe that they are already successful. Changes such as those proposed here usually come as the result of abject failures, acknowledged within the organization, and around which a powerful consensus can be built or from a powerful outside force (for example, a hostile takeover in the business world, or a new commander with a task order to “fix the problem” in the military). Neither of those impetuses exists in the case of the war colleges; they are fine, well-functioning organizations. But they need to change from teaching about strategy to teaching it—for the purpose of producing graduates who are strategists. So, where to begin?

Lacking the necessary driving forces for simultaneous major change, it is prudent to seek incremental change, through which a learning curve can be created and a momentum of success can be built. The faculty comes first, and then from the faculty comes the curriculum. The faculty owns the curriculum and is the custodian of academic rigor and institutional accreditation. Within the faculty, begin with the senior mentor and Ph.D. in strategy programs. Every warrior tribe asks its elders to teach those who would follow and lead in battle; the senior mentor program fits that mold. Every serious profession has a Ph.D. level within academia; the doctorate in strategy fits that mold. The senior mentor and Ph.D. programs are both modest expenditures. From these programs curriculum changes could flow, including, at a minimum, a wealth of case studies focused on integrating the elements of national power in the service of strategy. The remainder of the suggested curriculum changes would follow naturally, part and parcel with case study development, and as they prove their worth (or not).

The war colleges are at an interesting juncture where their traditional approach to the definition of strategy, which has served reasonably well for years, is out of date and

potentially dysfunctional to teaching and developing future strategy. This position is similar to the great schools of administration of the 18th and 19th centuries, formed to relieve royals of the tedium of everyday governance by building a corps of professional administrators. The overarching assumption of these schools was that politicians (in particular the royals) did politics and administrators did administration, and never the twain should meet. But by the early 20th century, it became obvious that successful politicians did a lot of administrating, and successful administrators did a lot of politicking. The great schools of business changed—bringing the study of politics into the education of any administrator, and adding administration/implementation into the education of any senior executive. The parallel in our arena is to bring the instruments of power into the education of all levels and to develop a definition of strategy that spans all of the levels of PME—around and through which we can build a coherent, current, and relevant curriculum.

The major change proposed through this article is to reaggregate the various partitions of strategy. Strategy exists at *all* levels. And all aspects of strategy and all elements of power are similarly present—in different degrees and forms, to be sure, but they exist and should be taught. This aggregated approach offers a more workable framework for teaching strategy. It also requires some changes in curriculum and makes demands on war college faculties—demands that will have to be met with resources. The key is a common thread—the definition of strategy—around which a curriculum can be created and executed by a faculty that is tailored to the mission. **JFQ**

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NOTES

¹ Stephen D. Chiabotti makes this point in “A Deeper Shade of Blue: The School of Advanced Air and Space Studies,” *Joint Force Quarterly* 49 (2^d Quarter 2008), as he relates that the Air Force’s School of Advanced Air and Space Studies had to be carved out of, and held separate and distinct from,

the PME architecture in order to focus on producing strategists.

² Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms* (Washington, DC: Joint Chiefs of Staff, September 2006), defines *strategy* as “a prudent idea or set of ideas for employing the instruments of national power in a synchronized and integrated fashion to achieve theater, national, and/or multinational objectives.” This definition is bureaucratically appealing, politically correct, and relatively useless. The definition makes no mention of strategy’s conjoined twin, policy. The definition suggests that a prudent set of ideas not synchronized and integrated is something other than strategy. Finally, it portrays strategy as an idea, which is elevated to the status of strategy on the basis of its prudence alone—not its boldness or its necessity, but its prudence. “Prudent,” “synchronized,” and “integrated” are scarcely more than semantic lubricants to aid the aged and dry joint publication coordination process.

³ Doctrine is not strategy. Doctrine, which exists in the military community and among the world’s great religions, stands apart from all other aspects of strategy, except to serve as a sort of memorandum of agreement between the most contentious factions—the Service chiefs, combatant commanders, and the joint world. To be sure, and not unlike disputes among monastic orders and Western and Eastern Christianity, there have also been great schisms among and within the Services, combatant commands, and joint community at large over doctrine that had to be resolved by higher authority.

⁴ Somehow all of this is hinged together by *operational art*—a term born of necessity. The necessity was that the division of activities into strategic, operational, and tactical was becoming increasingly frustrating to all concerned.

⁵ There is a broad section of our professional literature that would support the contention that the partitions of strategy, and differentiations between strategy and tactics, are out of date. If tactical situations can have strategic consequences, then what is the difference between tactical and strategic? If Charles Krulak’s “strategic corporal” in a three-block war is an accurate portrayal of the modern battlefield, then does the strategic, operational, tactical partition make any sense?

⁶ Of note, JP 1-02 does not even define the term *policy*.

⁷ The Royal Military College has a master’s level program and a Ph.D. program. It includes such fields as international relations, war, defense economics, diplomatic history, strategic planning, intelligence, ethics, civil-military relations, World War II and total war, armed forces and society, interagency process, modern warfare, insurgency and terrorism, conflict termination, and reconstruction.

“Military-Political” Relations: The Need for Officer Education

By DEREK S. REVERON *and*
KATHLEEN A. MAHONEY-NORRIS

The Provincial Reconstruction Team experience in Afghanistan and Iraq demonstrates that, where inadequate civilian capacity to deploy for post-conflict stabilization and reconstruction operations exists, military and Department of Defense civilian personnel will be employed to carry out stability operations, regardless of whether they possess the requisite skills, technical expertise, or training.¹

Iraqi contractors review displays and sign up for projects at Ramadi Reconstruction Conference



U.S. Marine Corps (Andrew D. Pendrack)

To underscore the diversity of missions now being carried out by the U.S. military, consider the following examples. First Marine Expeditionary Force sent 15 Marines to Foreign Service Institute courses and conducted 2-day “economic reconstruction roundtables.” Third Brigade Combat Team, 101st Airborne Division Soldiers have been conducting a comprehensive assessment to revitalize Iraq’s aquaculture industry. The Navy’s amphibious dock landing ship, the USS *Fort McHenry*, hosted nongovernmental organizations (NGOs) on board to facilitate fisheries conservation. And Army and Marine Corps commanders are serving as de facto town mayors. While Civil Affairs units have always conducted such missions, in the current environment they are no longer alone.

Today, all Soldiers, Sailors, Marines, and Airmen participate in what was formerly the domain of the specialist. As the House Armed Services Committee notes in the epigraph above, where inadequate civilian capacity exists (in and out of combat zones), military personnel will be employed whether they are prepared or not.² While deploying units continue to give their personnel the basic technical skills to excel, there is a definite lack of preparation and expertise within the officer corps to serve in such widely varying stability operations capacities as de facto town mayors, coordinators of economic development, builders of judicial and law enforcement institutions, and promoters of social harmony.

Yet Department of Defense (DOD) Directive 3000.05, "Military Support for Stability, Security, Transition, and Reconstruction Operations" (November 2005), requires the U.S. military to move beyond just fighting and winning the Nation's wars to the equally important military mission of supporting efforts to stabilize areas and rebuild institutions in order to develop a lasting peace. While there is no quick solution to provide military officers with the diverse skills necessary for conducting these stability operations, the realities of future nonwarfighting missions require professional military education (PME) institutions to create officers able to excel in military-political environments around the world. This goes beyond teaching about the interagency process and knowing what other U.S. Government institutions bring to the table. Rather, this requires military officers to embrace their expanded roles in the geopolitical space as they increasingly serve as important political actors, fulfilling development, diplomatic, and educational roles.

Expanding PME

It seems self-evident that this field of "military-political relations" is bound to expand, abetted by an ever-increasing role for the U.S. military in the foreign policy realm. The latter

fact was highlighted by Secretary of Defense Robert Gates, who predicted that asymmetric warfare would predominate in the near future, pointing out that "these conflicts will be fundamentally political in nature, and require the application of all elements of national power. Success will be less a matter of imposing one's will and more a function of shaping behavior—of friends, adversaries, and most importantly, the people in between." The Secretary went on to state that "how well we enable and empower our partners to defend and govern themselves" is perhaps "the most important military component in the War on Terror."³

Secretary Gates' view underscores our contention that U.S. military officers require an expanded understanding of, and education on, military-political relations—defined generally as the relationship between the military and U.S. foreign policy. Field-grade officers in particular need to be better educated on how best to shape the security environment, whether they are operating at the global national level or within a geographic combatant commander's area of responsibility. PME institutions should devote sustained attention to developing officers' breadth and depth in this military-political relations arena.

Some 10 years ago, contributors to *Joint Force Quarterly* were advocating for PME

institutions to help produce officers who were more innovative critical thinkers and leaders, able to respond to the complex challenges of a dangerous future.⁴ We still need that type of thinker and leader, but today we also need to provide them with more nuanced habits of thought to deal with the political-military, socioeconomic, and complex cultural and regional issues that concern the United States.

Unfortunately, without a mandate to consider this essential area, military-political relations may well be slighted because of the continuous need to stretch curricula at the PME schools to accommodate all the subjects considered necessary for today's professional officer.

field-grade officers need to be better educated on how best to shape the security environment

Additionally, the tendency for officers to dismiss the military's role in nonwarfighting missions as a function for the "interagency" community—that is, not the military, but the Department of State, U.S. Agency for International Development (USAID), or another Federal agency—further complicates any attempts to prepare the military better for its broader roles in promoting security. Yet while the State Department is America's lead foreign policy organization, in reality U.S. military commanders are as much policy entrepreneurs as they are warfighters, and they increasingly fulfill important diplomatic roles. In fact, DOD has a distinct advantage over the State Department in both size and resources, with its operating budget many times greater than State's. U.S. military commands, with their forward presence, large planning staffs, and various engagement tools, are well equipped for those roles and increasingly welcome them.⁵ Today, these commands routinely pursue regional level engagement by playing host to international security conferences, promoting military-to-military contacts, and providing American military presence, training, and equipment to improve regional security.

Still, involvement in foreign affairs has been criticized for being in tension with the military's warfighting ethos. Some analysts also wonder whether officers can reasonably be expected to acquire the linguistic skills, political acumen, and cultural knowledge to operate effectively as surrogate diplomats, and whether having officers in such roles tends to

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Joint Contracting Command–Iraq/Afghanistan commander speaks with Iraqi women about their role in business world



U.S. Marine Corps (Jeremy M. Giacomino)

cast international affairs as military problems. Yet military forces have always had important roles other than fighting wars, and the gap between senior military officers and senior diplomats is not that wide. What is changing is that these roles and responsibilities are becoming permanent fixtures at the tactical and operational levels of war, demanding new habits of thinking from younger officers.

How We Got Here

Since multilateral military operations are the norm today (at least 35 countries are militarily active in Afghanistan), U.S. forces clearly need regular interactions with their international partners. Those activities make up what has come to be known as *Phase Zero operations* and are the softer side of military power. Through global military engagement, these activities build trust and cooperation between the United States and key foreign elites. This is no longer the exclusive operating area for diplomats; it is also a challenge to midgrade officers to move beyond their warfighting proficiencies. Thus, we believe that it is important to recognize this reality and actively teach our officers the necessary military-political competencies to excel in this environment, especially as this phenomenon of increased military activities dates back at least 15 years.

To substantiate the need to educate officers in this area, and to flesh out what specific competencies should be considered to accomplish that education, it is worth exploring how the U.S. military got to the point of being so heavily involved in the foreign policy arena. Contrary to what one might suppose, contemporary involvement actually has its roots prior to September 11, 2001, in the 1990s. President Bill Clinton's 1996 *National Security Strategy of Engagement and Enlargement* directed the military to engage with international partners and to provide a credible overseas presence.⁶ Being forward deployed during the Cold War had taught Washington that by providing for other countries' security, the United States could advance its trade agenda, and countries protected by American security guarantees could focus on their own political and economic development.

Taking its cue from the 1996 strategy, the 1997 Quadrennial Defense Review posited a new foundation of "shape-respond-prepare," which not only emphasized the capability to fight and win wars but also placed "greater emphasis on the continuing need to maintain continuous overseas presence in order to

shape the international environment."⁷ A major goal of engagement or shaping was to reduce the engines of conflict. In addition, the U.S. military's experiences in Somalia, Haiti, and Bosnia and Herzegovina in the 1990s forced it to recognize that it is far more effective in preventing state failure than in responding to its aftermath.⁸ Yet to date, civilian leaders have not been able to resist calls for U.S. intervention—even after state failure—and the U.S. military has been involved in these operations, albeit reluctantly.

At the same time, the 1990s "shape-respond-prepare" strategy and expansion of

military missions also gave rise to a "superpowers don't do windows" argument, particularly within the military. Defense analysts such as John Hillen identified 1990s diplomatic engagement by the regional commanders—General Wesley Clark, General Anthony Zinni, and General Charles Wilhelm—or state-building missions in Haiti, Bosnia, and Kosovo, as inappropriate and distracting for an organization that is supposed to fight and win the Nation's wars. Experiences in Iraq and Afghanistan have started to renew this argument, but clearly the U.S. military will be conducting stability and reconstruction operations

being forward deployed during the Cold War taught Washington that countries protected by American security guarantees could focus on their own political and economic development

Marine Corps officer discusses operations with Afghan National Army officers



U.S. Marine Corps (Luis P. Valdespino, Jr.)

for the foreseeable future. Other observers have expressed fears of a postmodern imperialism, a failure in civilian control of the military, or a major problem with the interagency process. Since 1989, this line of reasoning goes, the United States has been overly prone to military (humanitarian) intervention while the military should be focused on war proper. Andrew Bacevich, a professor of international relations at Boston University, connected that tendency for the military to do it all with a disturbing trend within American politics that links the military tool and utopian political ends. That,

as the U.S. military manages the Foreign Military Financing program on a daily basis, politically knowledgeable officers are required to administer it

in turn, Bacevich argues, leads to an increased propensity to use force.⁹ Other critics such as Mitchell Thompson have contended that if only the State Department were on an equal budgetary footing with DOD (thus creating true interagency cooperation), the United States would have a more balanced, less beligerent foreign policy.¹⁰

Yet in spite of calls for budgetary reform to increase social and economic assistance provided through the State Department, Congress simply finds defense issues more compelling. Politicians have an interest in associating themselves with patriotism and strength, so it is much easier to find advocates for counterterrorism training than for women's empowerment programs. The conventional wisdom on Capitol Hill is that while defense spending is understood by American voters to be a matter of national security, international assistance sounds unnecessary. Thus, while some members of the Senate Foreign Relations Committee would like to place all security assistance under the authority of the Secretary of State, or even break up the current military command structure, such efforts have failed. It is important for our field-grade officers to understand the pros and cons of these types of arguments—and the politics involved—as they will inevitably be affected by them as they take on higher level positions, no matter what administration is in power.

This conclusion is reinforced by the fact that, despite its early impulses against inter-

vention, the George W. Bush administration found it necessary to embrace state-building, too. President Bush could not escape from the reality that there is a global demand for U.S. engagement programs and that the military is most readily available to do the engaging. By strengthening foreign militaries, states become less vulnerable to transnational crime or state failure and can respond to natural or manmade disasters. By increasing the capacity of foreign military forces that can respond to their internal problems, the U.S. military can reduce its own commitment to conflict zones. Secretary Gates underscored this reality when he recently declared that “from the standpoint

states “at risk.” Security assistance is meant to help fledgling democracies consolidate, fragile states avoid failure, and authoritarian states liberalize, which recent studies credit with some success.¹² It also fulfills important training, basing, and operational requirements for American forces stationed in some 40 countries. Those U.S. forces help build partners' security capabilities, influence potential adversaries, mitigate the underlying causes of conflict, and enable rapid action when military intervention is required.

Equally important to building partners' security capabilities is the Foreign Military Financing (FMF) program. Through this



U.S. Air Force (Joshua T. Jasper)

Nangarhar Provincial Reconstruction Team members and local officials discuss electricity output from dam

of America's national security, the most important assignment in your military career may not necessarily be commanding U.S. soldiers, but advising or mentoring the troops of other nations as they battle the forces of terror and instability within their own borders.”¹¹ Thus, “graduates” of U.S. security assistance programs can be found alongside American forces in Iraq, Afghanistan, and the Balkans.

In Afghanistan, for instance, U.S. troops make up only about 50 percent of the force; in the Balkans, U.S. forces have always been a minority. Indeed, the current focus on transnational threats has been an additional impetus for building such partnerships. For example, the United States largely trained and supported African Union forces in Darfur, Sudan. This represents just one instance of continuing U.S. interest in promoting security assistance for

program, partners receive grants and loans to purchase American military equipment. As the U.S. military manages the FMF program on a daily basis, politically knowledgeable officers are required to administer it. To ensure the U.S. military does not arm regimes completely divorced from U.S. foreign policy, the State Department provides oversight. Last year, the FMF budget was the largest program in the State Department's international assistance account, consuming more than \$4.5 billion, which is 50 percent more than the Economic Support Fund and 60 percent more than the global HIV/AIDS initiative.¹³ Yet in April 2008, Secretary Gates asked Congress to give DOD permanent authority, as the lead agency, for the Global Train and Equip program, which trains and equips foreign militaries on a rapid assistance basis. In fact, DOD asked Congress

to raise the program's annual budget to \$750 million, representing a 250 percent increase.¹⁴ Regardless of who actually owns or manages the program, it is important for military officers to understand the bigger foreign policy picture and how security assistance programs fit into the U.S. policy context.

With control over so many resources, it should not be surprising that some critics worry that the United States has inadvertently created a new class of overly powerful and independent military officials—particularly the geographic combatant commanders—along the lines of the proconsuls of ancient Rome or the viceroys of British India.¹⁵ We find it difficult to take such concerns too seriously, though a case can certainly be made for strengthening the civilian presence in foreign policy, including related matters that fall within the geographic combatant commander's area of concern.¹⁶ Yet while there are inevitable frictions, generally American Ambassadors and military commanders understand that they need each other's cooperation. Coercive diplomacy works only if there is military force behind it; military engagement works only if it supports larger national security objectives. In essence, then, these are interagency activities, but they are different from what midlevel officers have experienced or learned about to date. In fact, these types of activities turn the normal supported/supporting agencies relationship on its head for field-grade officers, as even fairly junior grade officers have routinely found themselves serving as de facto mayors, police chiefs, and economic advisors in Iraq and Afghanistan. This again requires that we provide officers with the necessary military-political competencies to succeed.

Clearly, the new U.S. Africa Command (USAFRICOM) will test the effective use of military-political competencies even further. The already existing Combined Joint Task Force–Horn of Africa can serve as a model to illustrate how Civil Affairs activities can fulfill the commander's intent to achieve military objectives. It is also useful to recall that this focus on other than combat/conventional skills is not new to U.S. officers who have served tours in U.S. Southern Command (USSOUTHCOM). For many years, USSOUTHCOM has demonstrated the necessity and utility of U.S. military officers serving to further foreign policy goals in the nontraditional areas of countering narcotrafficking, providing humanitarian relief and disaster assistance, and serving as

role models for advancing human rights and civil-military relations in the region. The changing military roles required to serve U.S. foreign policy goals in USAFRICOM underscore the fact that the longstanding operations in USSOUTHCOM represent more and more the rule rather than the exception. As USSOUTHCOM commander Admiral James Stavridis noted in a recent interview, the “most significant change to our organization is a change in our cultural mindset. . . . This new thinking will take us from a culture of war to a culture of war and peace, from a culture of moving people and materiel to one of moving ideas.”¹⁷

While Secretary Gates has made it clear that the State Department needs to play the lead role in overseeing U.S. foreign policy—including his strong support for a funding increase for the State Department¹⁸ to do more of this “nonmilitary” work—clearly the military will continue to play an outsized role in the stability operations, asymmetric warfare context. This is impossible to avoid considering the size, resources, and capabilities of the U.S. military. Yet to do this effectively, as Secretary Gates argues, we need “new institutions . . . for the 21st century, new organizations with a 21st century mind-set.”¹⁹ At the same time we need to focus on what the Secretary terms “the civilian instruments of national security—diplomacy, strategic communications, foreign assistance, civic action, and economic reconstruction and development.”²⁰

How to Proceed

We contend that in order to prepare U.S. military officers appropriately to carry out these civilian instruments of national security with their counterparts, our officers need relevant education, which can be done most effectively at PME institutions. As one example, consider the following curriculum that we believe encompasses the type of considerations necessary for the intermediate level of officer PME.

At the Naval War College, the National Security Decision Making Department has specifically structured its intermediate course around combatant commands so students can understand the military's nonwarfighting roles and their dynamics. Student seminars are designated as one of five geographic combatant commands (U.S. Northern Command is excluded to emphasize regional studies outside of North America) and are immersed in the political-military, socioeconomic, and security challenges of the corresponding area of respon-

sibility. At the same time, students are taught organizational dynamics, interagency competencies, and interpersonal skills and engage in a 3-week project to assess the region's security environment, develop a theater strategy, outline an implementation and assurance plan, and develop necessary capabilities to execute the engagement strategy over an 8-year period. This exercise places a seminar of 15 students in the shoes of a combatant command's senior staff to understand how the military contributes to U.S. foreign policy outside of fighting wars. It challenges students to understand how military activities fit within the activities of the State

to prepare officers to carry out civilian instruments of national security with their counterparts, our officers need relevant education, which can be done most effectively at PME institutions

Department, USAID, and other U.S. Government agencies. While some officers initially resist the nonwarfighting roles combatant commands undertake, by the course's end they fully understand the importance of the engagement mission. Furthermore, they have a better understanding of the overlapping nature of defense, development, and diplomacy, which they use to design security cooperation activities.

To ensure that this type of broadening education takes place at all PME institutions at appropriate levels, the Chairman of the Joint Chiefs of Staff must include military-political relations competencies as part of the requirements established under an updated Officer Professional Military Education Policy (OPMEP). It is critical that this becomes part of the OPMEP, and thus mandated through PME, in order to carry out the Chairman's stated “PME vision [that] entails ensuring that officers are properly prepared for their leadership roles at every level of activity and employment, and through this, ensure that the . . . Armed Forces remain capable of defeating today's threat and tomorrow's.”²¹ A wider understanding of the military role in foreign policy is an absolute necessity not only for defeating threats, but also for ameliorating the conditions that help engender them. The 2008 National Defense Strategy notes that the military “will help build the internal capacities of countries at risk. We will work with and through like-



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Defense Horizons 64

Lessons of Abu Ghraib: Understanding and Preventing Prisoner Abuse in Military Operations

The abuse of prisoners by U.S. Soldiers at Abu Ghraib had broad strategic consequences, leading many around the world to question the legitimacy of U.S. goals and activities in Iraq. In this paper, Paul Bartone draws on extensive unclassified reports from multiple investigations of the abuses, and applies psychological and social-situational perspectives to develop a better grasp of the causative factors. He finds that most young adults are powerfully inclined to behave in accord with the social conventions and pressures around them. Thus the lessons for military leaders at all levels and especially in ambiguous circumstances: ensure that standards of behavior are clear and explicit throughout all phases of an operation, and personally represent and reinforce those standards.

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SPECIAL FEATURE | The Need for Officer Education

minded states to help shrink the ungoverned areas of the world.” We propose that the following represents the type of learning area and associated objectives that should be considered for inclusion in the OPMEP. Officers should be able to comprehend and analyze:

- the capabilities and roles that U.S. military forces employ to conduct theater security cooperation activities
- the importance of strategic communication in conducting theater security cooperation activities
- the purpose, roles, functions, and relationships of combatant commanders and joint force commanders with U.S. Ambassadors and their staffs, NGOs, and international partners
- the achievement of unity of effort in the absence of unity of command in the areas of defense, diplomacy, and development
- how the U.S. military is trained to plan, execute, and sustain security cooperation activities.

In sum, much more can and should be done to increase the military-political acumen of military officers and their corresponding capability to operate effectively in today's complex environment. There is no reason to believe that security cooperation and stability and reconstruction operations are likely to end any time soon. Presidents and policymakers, both Democrat and Republican, find an irresistibly ready tool in the military, and many find it convenient to make use of this tool in ways that may ultimately weaken the military. Nevertheless, the U.S. military needs to be prepared to support likely missions for the near term and beyond. The question here is not whether the military should be engaged in nonwarfighting activities, but how to best educate our midlevel officers to interact appropriately with myriad other actors to produce optimal results for U.S. national security. **JFQ**

NOTES

¹ U.S. House of Representatives, Committee on Armed Services, Subcommittee on Oversight and Investigations, *Agency Stovepipes vs. Strategic Agility: Lessons We Need to Learn from Provincial Reconstruction Teams in Iraq and Afghanistan*, April 2008, 51.

² Ibid.

³ Robert M. Gates, “Beyond Guns and Steel: Reviving the Nonmilitary Instruments of American Power,” *Military Review* (January-February 2008), 6.

⁴ For example, Leonard D. Holder, Jr., and William Murray, “Prospects for Military Education,” *Joint Force Quarterly* 18 (Spring 1998), 81–90; and Ervin J. Rokke, “Military Education for the New Age,” *Joint Force Quarterly* 9 (Autumn 1995), 18–23.

⁵ While largely directed to Iraq and Afghanistan, the Defense Department accounts for 20 percent of official development assistance. See Stewart Patrick and Kaysie Brown, “The Pentagon and Global Development: Making Sense of the DoD's Expanding Role,” Center for Global Development, Working Paper 131, November 2007.

⁶ *A National Security Strategy of Engagement and Enlargement* (Washington, DC: The White House, February 1996), 17.

⁷ Department of Defense, 1997 *Quadrennial Defense Review Report* (Washington, DC: Department of Defense, May 1997), v.

⁸ Stephen D. Krasner and Carlos Pascual, “Addressing State Failure,” *Foreign Affairs* (July-August 2005), 153.

⁹ Andrew J. Bacevich, *The New American Militarism* (New York: Oxford University Press, 2005).

¹⁰ Mitchell J. Thompson, “Breaking the Proconsulate: A New Design for National Power,” *Parameters* 35, no. 4 (Winter 2005/2006), 62–75.

¹¹ Robert M. Gates, “Evening Lecture at West Point,” April 21, 2008, accessed at www.defenselink.mil/speeches/speech.aspx?speechid=1232.

¹² Carol Atkinson, “Constructivist Implications of Material Power: Military Engagement and the Socialization of States, 1972–2000,” *International Studies Quarterly* 50 (2006), 509–537.

¹³ Department of State, “Foreign Military Financing Account Tables,” available at www.state.gov/s/d/rm/rfs/iab/2007/html/60203.htm. Military assistance for Iraq and Afghanistan is not included in this account data. Also, of that \$4.5 billion, 80 percent goes to two countries, Israel (\$2.3 billion) and Egypt (\$1.3 billion).

¹⁴ Thom Shanker, “Pentagon Seeks Authority to Train and Equip Foreign Militaries,” *The New York Times*, April 17, 2008.

¹⁵ Thompson, 63.

¹⁶ We take more seriously concerns that conducting humanitarian assistance operations can undermine the military's warfighting orientation or inadvertently arm repressive regimes or future adversaries. See Bacevich, 3.

¹⁷ “An Interview with Admiral James G. Stavridis,” *Joint Force Quarterly* 50 (3rd Quarter, 2008), 128.

¹⁸ Nicholas Kralej, “Gates Seen Reversing Rivalry with State,” *The Washington Times*, April 17, 2008.

¹⁹ Gates, “Beyond Guns,” 7.

²⁰ Ibid., 8.

²¹ Chairman of the Joint Chiefs of Staff (CJCS), Officer Professional Military Education Policy, CJCS Instruction 1800.01C, December 22, 2005, 1. Until the OPMEP is updated, we urge that the competencies considered here be included as one of the annually updated “Special Areas of Emphasis.”

A Strategic Asset for Engagement Enhancing the Role of National Defense University

By KEITH D. DICKSON

The recently published National Defense Strategy lists promoting security as one of the five objectives of the Department of Defense (DOD). Certainly one way the United States pursues its national interests is by promoting security within cooperative relationships. In developing these relationships, DOD helps build the capacities of a broad spectrum of partners through security cooperation. The geographic combatant commands are responsible for developing these cooperative relationships and building security capacities in their campaign plans.

Chairman of the Joint Chiefs of Staff Admiral Michael Mullen has stressed the value of education as a means of enhancing cooperative relationships and building capacities. Traditionally, one of the most effective security assistance activities is the International Military Education and Training (IMET) program, funded by the Department of State as part of its international affairs budget. The program provides both professional military education and technical training to students from allied and friendly nations. Given the continuing high demand for joint qualified U.S. officers, only a

limited number of professional military educational positions per year can be reserved for international officers.

In addition to IMET, training exercises, partnerships, and exchanges are effective security assistance activities, but like IMET, they are limited in scale and scope and cannot have the broader influence required to meet our strategic goals. The National Defense Strategy's objective of promoting security involves the requirement to educate professional military officers of partner states who can function as commanders, staff members, and liaison officers in a joint environment as part of a coalition force. These officers would be fully able to plan and conduct effective joint operations and contribute to a coalition planning effort. To meet this strategic objective, professional military education must be capable of reaching a larger audience through educational activities that go beyond IMET.

Professional military education is a powerful draw and represents a singularly important engagement opportunity. The concept of jointness has attracted the interest of many national and military leaders of key partner states. The demonstrated effectiveness of the U.S. joint force has led to a desire among

a number of states to develop joint education programs for military officers and to reorganize current military structures into joint organizations. Unfortunately, while the demand for joint professional military education is growing, the United States lacks the structure to identify requirements or to develop, coordinate, and support programs. Combatant commanders, who are responsible for identifying key states and prioritizing efforts to build partner capacities through training or education, have few resources to support and sustain such activities. To meet the growing need for these educational requirements, combatant commanders need to be able to tap into other resources through the Joint Staff and be able to integrate joint professional military education capabilities into their long-term planning. One such resource, the National Defense University (NDU), exists under the direction of the Chairman.

The National Defense University is the center for joint professional military education. No other institution has greater expertise in this type of education. NDU has a threefold mission of education, research, and outreach, which is well suited to supporting a joint educational engagement strategy. It has the resident knowledge and expertise in national security strategy and policy, national resource management, and joint and multinational campaign planning and warfighting to support international partners in initiating, developing, and sustaining their own joint educational programs. Moreover, NDU explicitly promotes cultivating national and international relationships through national security education programs and by investing in faculty and staff to promote excellence in education and outreach.

The university already has a strong outreach program, which includes course participation of about 200 international officers a year, as well as faculty and student exchanges.



OSD Public Affairs (Jerry Morrison)

Dr. Keith D. Dickson is Professor of Military Studies in the Joint Forces Staff College at the National Defense University.

These activities, while useful and important, have inherent constraints. Physical capacity and class size limit the number of international officers who can attend in residence. Exchanges are often ad hoc and dependent on limited funding. What is missing is the strategic focus of NDU efforts in international engagement activities as part of its outreach mission requirement. The Chairman, through the Joint Staff, can provide the strategic focus necessary by identifying priority combatant command requirements for professional military education programs and providing direction to NDU

As part of providing strategic direction to NDU, educational engagement activities should be divided into three levels. Level I activities, some of which are already occurring, are programs for mutual exchange of ideas and processes. They serve as a means for senior field-grade officers to engage peers in discussions on planning methods and to participate in a practice staff exercise to develop means and methods for effective cooperation. These week-long programs currently run once a year. For key engagement states, these programs would be sufficient to maintain professional contacts

National Defense University has the resident knowledge and expertise to support international partners in initiating, developing, and sustaining their own joint educational programs

for supporting these activities. NDU, in return, could provide a tailored curriculum for partner states and conduct courses at various levels to assist in the development of military leaders who understand and appreciate joint warfare and can plan and conduct joint operations. Exportable educational modules ranging from basic joint operations orientation to strategy formulation could be developed and presented. In addition, NDU could support activities for establishing joint staff institutions, including joint operations instructor training and curriculum development, which could provide regional expertise, language skills, and educational expertise in both curriculum design and subject matter knowledge.

and build mutual knowledge and understanding. For other states, this program format can serve as an introductory course in joint operations and planning in preparation for more formal and detailed instruction. Depending on demand, these programs could be held as often as desired and as NDU resources permit.

Level II activities would involve a more formal educational setting, using the seminar model for detailed instruction in joint operations and warfighting. These seminars would be held once a year or every 6 months and last 1 to 3 weeks to provide military officers and civilian government leaders with an appreciation for the operational level of war, joint operational planning, and joint perspectives and attributes.

These seminars could be developed for a number of targeted audiences and be held sequentially or simultaneously. Seminars could be held for military and civilian senior leaders as workshops or tabletop exercises in inter-agency coordination. Other seminars could assist host nation faculty members in developing a joint operations curriculum for a staff or war college or in preparing to teach courses in joint operations or developing curricula related to joint operations. Seminars on strategy and operational planning could be directed at midgrade officers identified for future high-level positions. These seminars could be held in either the United States (at the National Defense University in Washington, the Joint Forces Staff College [JFSC] in Norfolk, or the combatant command headquarters) or in the host country.

Level III activities would assist a host nation in developing its own joint professional military education system. This could involve long-term support for curriculum development, faculty preparation, long- and short-term residencies, seminars and workshops, library and administrative operations, instruction by NDU faculty, and other activities. This would involve a 1- to 3-year commitment involving exchanges and visits between NDU and the host country's staff or war college or defense university, with the goal of developing a long-term partnership.

The U.S.-Russia Colonels Program and U.S.-Pakistani Colonels Program are models for employing NDU resources and capabilities with which to meet both national and theater security cooperation goals. These programs, hosted at JFSC, have served to promote cooperation and understanding among senior officers who will play a role in future decisionmaking and policy, while also serving as a unique learning opportunity to test and practice different methods for forming effective coalition staffs. The cooperation among the Office of the Secretary of Defense, Joint Staff, U.S. Embassies, combatant command staffs, and NDU in conducting these programs is also a model for identifying combatant commands' requirements and coordinating a long-term and comprehensive program of educational support from NDU to meet those requirements.

At present, NDU supports two Level I activities a year. These exist as the Russian and Pakistani colonels programs and can be held in the United States or in the host country. These activities are accomplished as an additional duty within JFSC and the Institute for National Strategic Studies, and program expenses are funded almost entirely outside of NDU. In the



School for National Security Executive Education international students graduate from National Defense University, 2007

OCJCS Public Affairs (Adam M. Stump)

short term, other Level I programs could be initiated through the combatant commanders contacting NDU directly and requesting Level I support. Funding could be provided by the combatant command, the host nation, or both. NDU faculty volunteers would be tasked to develop the curriculum, coordinate with the appropriate agency within the combatant command, and deliver the tailored program. With some lead time, Level II activities could also be developed and initiated.

A longer term solution is to ensure that NDU's support of engagement is included as part of the Guidance for Employment of the

coordinating with the Defense Security Cooperation Agency, NDU could tap into the resident regional center affiliates (the Africa Center for Strategic Studies, Center for Hemispheric Defense Studies, and Near East South Asia Center for Strategic Studies) to supply theater expertise. NDU could develop procedures to set schedules, establish outcomes, manage funding, and develop a plan of action to support the activity requested, scheduling and executing the missions based on the 3- to 5-year goals listed in combatant commands' campaign plans. It also could identify faculty and staff throughout the university who are willing to support these

means for transforming their military organizations and making them more compatible with the United States and other partner nations. Educating officers in developing plans through the joint operational planning process would create a cohort of experts able to work effectively in a coalition as liaison officers or as members of a combined staff, drawing on the same principles and processes found in U.S. military staffs and interagency organizations. In this way the United States can contribute directly to creating strategic partners capable of deploying military and perhaps interagency organizations and working effectively with other states to address a wide range of contingencies and crises.

*there are a number of states
that are already important
security partners and would
potentially support a long-term
educational partnership*



Secretary Gates speaks with civilian defense experts at National Defense University, September 2008

DOD (Charlie A. Cullen)

Force. The combatant commands would begin to identify the professional military educational goals and requirements of key states in their areas of responsibility as part of their security cooperation activities. A number of states, such as Brazil, Chile, Egypt, Georgia, India, Mexico, Nigeria, Pakistan, Peru, Saudi Arabia, and Ukraine, are already important security partners and would potentially support a long-term educational partnership. It is not unreasonable to expect that Afghanistan and Iraq could be included in a future list. The combatant commands would submit their campaign plans to the Joint Staff, identifying Level I, II, and III engagement activities and request NDU support. The Joint Staff would prioritize the activities and provide funding arrangements.

NDU would have to be appropriately resourced and structured to meet the expanded requirement of supporting the educational needs of priority partner states. Within NDU, the newly established Office of University Outreach could provide university-wide oversight of its international cooperative relationships. The university could assess how it would plan, organize, and support these expanded activities and coordinate with the combatant commands, drawing on the strengths of its various colleges, research centers, and other components. By

program activities. Additional staff and faculty would be needed to provide administrative support and develop the necessary instruction materials and lessons derived from existing curricula and specifically tailored to support a combatant commander's requirement.

Once initiated, Level I and II events most likely would become standing yearly requirements. A Level III event may become a multi-year activity, with faculty and staff remaining in-country for weeks or months. In the initial stages of the program, volunteers from the faculty and staff should be sufficient, and they should be recognized and compensated for this additional duty. But in all likelihood, there would be an increasing demand for a full-time faculty and staff. NDU would need to be prepared to make the administrative and budgetary changes necessary to sustain this program as it matures.

Joint professional military education should be seen as a strategic resource for the United States. Educating both military officers and strategic leaders from partner states in the concepts and principles of strategy and operational planning supports long-term U.S. objectives in several ways. By developing an appreciation for joint perspectives and attributes, partner states would have an institutionalized

More importantly, these educational programs build personal relationships between faculty and students over the years, creating opportunities for improved working relationships between the partnering nation and the United States. Engagement through joint professional military education has the opportunity to influence a generation of officers in partner nations immediately by providing them with new perspectives and approaches to problem-solving, while fostering joint approaches and building a common strategic perspective that allows states to address their own security. These programs also would directly benefit NDU by extending its reputation internationally and providing more opportunities for faculty, staff, and student dialogue with foreign counterparts.

It will take vision, dedication, and imagination for the United States to meet its strategic goals in the 21st century. The National Defense University already has a model for educational engagement activities as part of a coordinated and integrated effort in support of the campaign plans of the geographic combatant commanders. This model could be expanded, organized, and funded as a major component of the NDU outreach mission. The potential strategic benefits of this program for the United States are significant. Already an indispensable strategic asset, the National Defense University has the opportunity to play a more significant role as part of the Nation's military instrument of power. **JFQ**



U.S. Navy (Brian P. Seymour)

Irregular Warfare Lessons Learned

Reforming the Afghan National Police

By LEWIS G. IRWIN

Irregular warfare is defined as a violent struggle among state and non-state actors for legitimacy and influence over the relevant populations. . . . [T]hese campaigns will fail if waged by military means alone.¹

The Afghan barber cutting my hair at an American installation in Kabul had a good life by Afghan standards. So when I asked what he thought of the post-Taliban era, I had every reason to expect a favorable review. But as he pondered his response, I could tell that he was choosing his words carefully. Finally, he answered, “I don’t approve of what the Taliban did to the people, but it is now very difficult to move around the country . . . and there is a lot of corruption in the government.” The first part of his response was ironic, as it was the Taliban’s insurgent activities that had created the need for the heightened transportation security that made travel slow. But the second part of his response was telling. For him, it would be the success or failure of our nontraditional, nonmilitary stability and reconstruction operations that would ultimately shape his decision whether to support the popularly elected government of Afghanistan.

Colonel Lewis G. Irwin, USAR, returned from Afghanistan in February 2008, where he led Focused District Development, a nationwide effort to reform the Afghan National Police. He is an Associate Professor of Political Science at Duquesne University.

My interest in his response was as much professional as personal, since my mission in Afghanistan was to lead the team charged with designing and implementing a nationwide reform of the Afghan National Police (ANP). While most Afghan governing institutions had long been viewed with suspicion by the people, the Afghan police were especially distrusted as a result of their lengthy history of corruption, cronyism, and incompetence. Furthermore, these same police officers served as the real face of the Afghan government for average citizens, as they were the representatives of the government most likely to interact with the local people on a routine basis.² So in keeping with the basic tenets of our counterinsurgency (COIN) doctrine and the irregular warfare (IW) joint operating concept, we would have to fix the Afghan police—and the government agencies administering them—as a critical step toward convincing the people to support the popularly elected government instead of the Taliban alternative. This article describes the scope and challenges of these major stability operations missions, while highlighting relevant elements of our new COIN doctrine—central to the IW concept—as they relate to operationalization, or using the COIN doctrine as the basis for specific action plans.

A few comments are appropriate at the outset. While some of what follows may sound like criticism, the exact opposite is true. In my experience, our leaders and troops are working extremely hard to realize success in these missions. As an institution, however, we have not gotten our planning and operating mechanisms right just yet. At the same time, it is likely that our military will be called upon to carry out many more of these missions, given the nature of IW operations and the “long wars” currently under way. One only has to look at the structure of U.S. Africa Command to see more evidence of our military’s likely future role in the application of soft power instruments of American influence. Furthermore, it is likely that our political leaders will continue to expect the military to take a leading role among the other U.S. Government agencies participating in these missions, given our comparative advantages in organizational structure, resources, and sustainability. Accordingly, this article outlines some potential pitfalls and challenges facing the leaders who will plan and execute these stability missions in the years to come.

The Mission

Arriving in Kabul in August of 2007, I had no idea that I would be handed the mission of a lifetime: in a few short weeks, I was assigned to the Force Integration and Training section of the Combined Security Transition Command–Afghanistan (CSTC–A). Our mission was to oversee the design, fielding, and development of the Afghan National Army and ANP, as well as the Afghan government agencies administering those security forces. My arrival coincided

other elements of the civil justice system and Afghan society, in order to enable the Afghans to manage their own security. The North Atlantic Treaty Organization (NATO) identified these elements as vital steps toward the ultimate goal of creating a stable, secure, and self-sustaining Afghanistan.⁵

Put into a broader context, this undertaking would be a daunting one. The local Afghan police are organized into almost 400 police districts outside of Kabul, as well as dozens of police precincts in the capital itself. Numbering

political leaders will expect the military to take a leading role in these missions, given our comparative advantages in organizational structure, resources, and sustainability

with the conclusion of a multilateral conference aimed at considering plans to reform the ANP, as the Afghan government and the international community had come to recognize both the criticality of the police force to the COIN effort as well as the ANP’s glaring lack of success to date. The major product of the conference was a set of PowerPoint slides that generally described a district-by-district approach to police reform, dubbed “Focused District Development” (FDD).³ As is often the case, the Afghans and their international community partners—except for the Americans—had hedged their bets by expressing tentative support for the police reform concept in principle while simultaneously avoiding any firm commitments of assistance or resources.

Typical of any stability or reconstruction mission, reforming the ANP would be a multilayered, complex undertaking. In Afghanistan, the police forces consist of seven different public safety and security organizations, with basic missions and organization outlined in the Afghan government’s Strategic Capabilities Plan.⁴ National civil order police, border patrolmen, district police, the counternarcotics force, the counterterrorism force, criminal investigators, and even the Afghan fire departments all fall under the Ministry of the Interior (MOI) umbrella. But while each of these agencies has its own distinct set of issues and challenges, the leadership decided to reform the traditional district-level police first, given their direct interactions with the people. At the same time, reforming the police would require further developing the MOI’s administrative capabilities, as well as

about 82,000 altogether, the police are often called upon to fight as frontline first responders in the counterinsurgency in addition to carrying out their basic law enforcement and criminal investigative responsibilities. This reform process would be made even more difficult by the fractious nature of internal Afghan politics, as well as the remnants of Soviet organizational culture that persist in

Afghan National Army and Police assume responsibility for Bak district after training by U.S. Army Military Police



U.S. Army (Casey Ware)

Afghan National Police on patrol return fire on fleeing Taliban members



U.S. Marine Corps (Jason T. Guilliano)

Afghan government agencies.⁶ Added to this challenging mix was the fact that corruption is an entrenched feature of Afghan culture, where “one-fisted” corruption—or theft perpetrated to feed one’s family or tribe—is viewed as just another routine feature of life. Any effort at professionalizing the police would have to take place within a context of abject poverty, widespread illiteracy, a thriving and well-connected drug trade, porous borders, and an almost total absence of the basic elements of rule of law, ranging from criminal investigators to lawyers, prosecutors, judges, and jails. Without doubt, we had our work cut out for us, and this problem would not be solved in a matter of months, but rather years.

The Operational Environment

Armed then with about 60 PowerPoint slides and a rough idea of how this nationwide reform ought to look, our team set to the tasks of fleshing out a specific structure for the FDD program and pitching the concept to the numerous players who would have to be brought on board for the initiative to achieve legitimacy and success. Ultimately, this effort would involve interacting with the highest levels of NATO, U.S., international community, and Afghan leadership, but the nature of the operations would also require involving key leaders all the way out to the point of the

spear in crafting and executing the plan—and getting the warfighters’ “buy-in” as a precondition for participation. Unlike conventional military operations, which derive their unity of command through a hierarchical chain, stability and reconstruction operations by their nature require negotiation, compromise, and the inclusion of a wide variety of actors in the decisionmaking process, each bringing to the table different resources, concerns, and areas of authority. Our COIN doctrine speaks to this challenge in its section on “unity of effort.”⁷ Without question, achieving consensus around a plan of action is often the most difficult aspect of successful stability operations.

In the ANP case, the relevant U.S. agencies and actors included the U.S. Ambassador and Embassy; U.S. Central Command and its subordinate CSTC-A; the U.S. national command element and subordinate brigade combat teams; the Department of State’s Justice Sector Support Program, U.S. Agency for International Development, and Bureau of International Narcotics and Law Enforcement Affairs; and numerous others. The long list of relevant international entities and nongovernmental organizations included the European Union Police, United Nations Assistance Mission–Afghanistan, International Police Coordinating Board, NATO’s International Security Assistance Force (ISAF), and an extensive array of embassies, international organizations, and other actors with widely varying interests, resources, and agendas. Representative of the convoluted decisionmaking structures in these types of operations, CSTC-A answers directly to U.S. Central Command but must consult with the Ambassador and Embassy while working in parallel with the U.S. warfighters, themselves at least nominally subordinate to the NATO ISAF commander. It was not unusual to find our allies’ military commands disagreeing with their own embassies regarding the shape and direction of their countries’ policies and preferences.

Similarly, it was commonly understood within NATO, the European Union Police, and other multinational organizations that the constituent members were far more concerned about the reactions of their home governments to their decisions and actions than they were to the reactions of the appointed leaders of the organizations in Afghanistan. Likewise, CSTC-A has to deal with its own internal array of interests, as a

combined (allied), joint, interagency, and multicomponent headquarters organization, one ultimately working through the interagency process while sharing key decisions with the sovereign Afghan government. CSTC-A also depends heavily on contracted civilian police mentors for the Afghan police training effort, though ironically those contractors are employed by the State Department and ultimately accountable to that agency rather than the military. Conversely, CSTC-A controls the massive funds associated with the development of the Afghan forces, and as such can wield disproportionate influence over that aspect of the process.

Nevertheless, both our international partners and the Afghan leaders would not hesitate to let us know when they disagreed with us, or when their interests did not coincide with ours. For example, a senior representative from an allied embassy stated bluntly to me on one occasion, “If you Americans succeed, then we are with you. If you fail, you are on your own . . . and we think you will fail.” At another juncture, the U.S.

without question, achieving consensus around a plan of action is often the most difficult aspect of successful stability operations

Ambassador directed me not to consult with one very senior Afghan official because he felt that U.S. interests were a mismatch with that official’s political goals. Privately, some leaders believed that there were governments operating with us in Afghanistan that wanted to see the Afghans succeed while the United States failed. But in any event, the decision-making authority and jurisdictional centers of gravity routinely shifted along with changes in key leaders, allied government agendas, Afghan preferences, and various elements of U.S. policy. Leaders cannot underestimate the challenges associated with this tough operational environment or the amount of effort it takes to build and maintain consensus around any major new initiative.

Key Lessons Learned

What follows are 10 key lessons I learned from the experience of designing and setting in motion one of these major stability opera-

tions, offered as food for thought for the rising leaders who will carry out similar missions, as well as those charged with refining our emerging IW doctrine.

Fragmented Decisionmaking Authority and Incoherence of Vision. One of the key challenges of the operations in Afghanistan and in other IW environments is the fragmented nature of decisionmaking, with numerous actors bringing their own agendas, interests, resources, and areas of authority to the table on most decisions of consequence. This situation can be frustrating for U.S. leaders, as they see the United States providing the preponderance of the resources earmarked for Afghan development but then having to accommodate various international players who insist on having input into key decisions on the commitment of those funds. The Law and Order Trust Fund for Afghanistan (LOTFA), an international panel charged with setting Afghan police salaries, is a good example of this convoluted organizational structure. LOTFA is an international body, with United Nations and allied representation, although the United States provides the great majority of the funds used to pay Afghan police. Thus, the United States often has to negotiate with LOTFA before spending its own money. Similarly convoluted interagency decisionmaking occurs between CSTC-A and the State Department.

With all of these players active in the decisionmaking process, the different governments and nongovernmental organizations involved often advocate competing visions for Afghanistan's future, and too often they pursue these visions regardless of decisions or agreements to the contrary. With no one player having enough leverage or authority to direct otherwise, this fragmentation leads to incoherence in the collective international redevelopment effort in Afghanistan, resulting in a great deal of wasted effort and generally ineffective results. Not surprisingly, the Afghans often play one international actor off against the other until they find the answer that they want. The internal U.S. organizational structure, with its interagency, combined, and joint flavor, adds to this challenge, as each of the key agencies operating in Afghanistan experiences frequent turnover and shifting internal visions, providing the Afghans additional opportunities to exploit seams. In one telling example, a high-ranking NATO ISAF leader felt that he could not pledge the support of his subordinate Pro-

vincial Reconstruction Teams to the police reform effort, as he believed that they would continue to pursue their own governments' visions of Afghan redevelopment, regardless of what vision was put forth by the ISAF leadership.

While a certain amount of this fragmentation and incoherence of vision is unavoidable, there are steps mission leaders can take to mitigate challenges. Keeping in mind that "unity of intent" is the goal, constant communication and negotiation are both critical to success. Typical mechanisms for bringing about this communication are standing work groups, joint planning groups, civil-military operations centers, joint interagency coordinating groups, and other ad hoc steering groups.⁸ Wherever possible, it is important to get leaders with real decisionmaking authority, both host nation and coalition, to participate routinely in these groups. By definition, the decentralized and fluid nature of stability operations requires leaders at all levels and in all interested organizations to understand the broader goals and specific objectives at the strategic, operational, and tactical levels of the effort. Leaders cannot underestimate the amount of effort it will take to get everyone on the same page.

Force Structure Mismatches with Mission Requirements. Stability and reconstruction operations usually require a variety of skills and resources that do not routinely reside within the U.S. military. Furthermore,

number of police mentor teams falls far short of the number needed to provide district-level coverage throughout the country, resulting in some districts only being visited sporadically or not at all.⁹ At the same time, the civilian police mentors hired by the State Department to provide civilian law enforcement expertise to the developing Afghan police forces do not have the flexibility to deploy into the areas where they are needed the most, for reasons of force protection and nonpermissive threat conditions. Nor do they typically bring a Soldier's mindset to the tasks at hand. As a result, there is a real mismatch between the force structure needed to carry out the Afghan police development mission and the resources available on the ground.

In terms of potential corrective courses of action, John Nagl has suggested the creation of a "combat advisory corps," consisting of professional Soldiers organized and trained to meet these specific needs as their primary mission.¹⁰ At the very least, however, there are three corrective courses of action that leaders can take to mitigate the effects of force structure/mission mismatches. First, we should choose our best leaders to interact with the indigenous leaders, essentially placing the "A team" in those positions of responsibility. Second, we can collocate our mentors, supporting staff operations, and the developing indigenous leaders and their staffs. Too often, U.S. staffs work so hard to meet current mission requirements that they

with all of these players active in the decisionmaking process, the different governments and nongovernmental organizations involved often advocate competing visions for Afghanistan's future

by definition these missions, with their emphasis on mentoring and coaching, place a premium on senior-level leaders with the talent, experience, temperament, and credibility to interact effectively with indigenous leaders. Put another way, these operations require augmentation with subject matter experts from various fields relevant to the tasks at hand, as well as enough senior leaders to build the developing agencies and organizations. Unfortunately, our force structure—in Afghanistan at least—falls well short of this standard, in terms of both the required skill sets on the ground and the adequacy of the mentor coverage. For example, the basic

lose sight of the longer term objective of the effort—training the host nation forces and agencies to sustain themselves and their own operations. Collocating the two parts of the team would force that development to occur. Finally, strip all nonessential staff personnel from the supporting staff functions and place them into positions where they can make the most significant and direct contribution to the mentoring effort.

Weak Interagency Coordinating Mechanisms and Execution. The prevailing model of interagency coordination in Afghanistan could be described as the "bubble up" method. Periodic direct coordination among the

highest level leaders occasionally generated broad policy compromises, but those meetings did not provide the specific terms needed to implement the agreements reached. Instead, routine interagency coordination took place in lower level work groups that identified and attempted to resolve problems at the lowest level possible. Theoretically, then, problems that could not be resolved at the lower level would bubble up to successive levels until they reached a level at which the participants had the authority to make a decision.

While this system offers advantages in terms of managing senior-level work load, it also brings with it some major disadvantages. For example, this model assumes that the lower level participants in the process remain engaged, informed, and responsive, and it assumes away the stovepiping of information typical within most agencies, as well as the frequent turnover and absences of agency representatives from the working groups that occur for all manner of reasons. Given that these optimistic assumptions never held up over time, the bubble-up system tended to exacerbate the fragmented and incoherent nature of policymaking and implementation, too often thwarting the unity of effort that we aim to achieve. Likewise, this decentralized, bottom-up process too often delayed collective action because key decisionmakers were not engaged until late in the process. Viewed comprehensively, the interagency process was weak and largely ad hoc in nature.

There are several ways that mission leaders can improve this process, however. The first potential corrective for systemic interagency problems involves seeking senior-leader command emphasis, not only from the military side of the interagency process, but also from the senior and midlevel leaders of the other participating agencies. It is also critical to identify key leaders of real ability, with resources of organizational political capital and sharing like-minded visions for the desired endstate, in each of the participating agencies. Another related and complementary approach is to develop ad hoc, agile information-sharing and decisionmaking structures, consisting of participants with the ability to establish priorities, make resource decisions, and pull together the systems, products, consensus, and resources needed to move the mission forward.

Allied Relationships. While we like to think that we are all members of the same team, the basic reality of U.S. relationships



Afghan National Police officer stands guard at checkpoint while Soldiers provide overwatch



U.S. Army (Michael L. Casteel)

with our coalition and international community partners is that each player brings different interests, visions, and resources to the table. Furthermore, the NATO and European Union agencies operating within Afghanistan are not unitary actors, as the various leaders of those organizations ultimately answer to their home governments before yielding on policy questions. As a result, it can be difficult to gain approval for significant new initiatives, or to steer an existing program in a different direction.

Moreover, it is important to understand that while all aim to achieve “progress in Afghanistan,” each country and each participating organization has different interests that they are protecting and different definitions of that end. Our effort may require overcoming outright opposition or resentment, or major constraints on resources. Along these lines, one allied ambassador, for domestic political reasons, was quite open about his country’s inability to deliver on its major commitments to the police reform effort. Another international coordinating body was wholly incapable of performing the basic functions for which it was created, but it was nevertheless important to include that agency in every deliberation to maintain the legitimacy of the process in the eyes of the international community. Therefore, as is the case with the interagency process, in dealing with these various players, it is critical to share as much information as possible, while negotiating openly and in good faith with the talented and like-minded leaders identified in each

organization. In a real sense, we are creating and bringing together an ad hoc version of what Hugh Heclo called an “issue network,” consisting of all of the players with an interest in a desired outcome.¹¹

Challenges of Host Nation’s Politics, Leadership, and Society. As military officers, we are by nature action-oriented people; that is, give us a mission and get out of the way. By definition, however, stability operations take place within a political context, subject to the influences and vagaries of host-nation politics and economics. In the case of the Afghan police reforms, the impact of Afghan politics, leadership, and operating context added another—and ultimate—layer to the process of securing approval for the direction and shape of the nationwide reform. That is, it was necessary not only to negotiate the shape of the program with the international community, but also to seek guidance and approval from the Afghan leaders at the outset of the enterprise, as well as final approval once a rough consensus was achieved among the international community players. Likewise, the fact that this country is one with no connectivity, no electricity, limited public infrastructure, no legitimate economy, and a government with only limited influence across the country makes the simplest activities, including paying the police or providing uniforms and training, extremely difficult.¹² It is critical to identify the right indigenous “go-to” leaders and to develop their staffs to set the conditions for success. In the case of Afghan police reform, Deputy Minister for Security

Mohammad Munir Mangal was that critical leader in the MOI, though we spent a great deal of time with other key Afghan leaders as well in order to navigate through competing Afghan interests and factions. It was also necessary to train the midlevel Afghan staff officers needed to support the operations within MOI, as those staff capabilities did not yet exist within the Afghan government.

Lack of Doctrine and Accountability.

As members of an action-oriented organization, another of our tendencies as military officers is to want simply to “get something done.” Partly as a result of this tendency, the police force’s basic doctrine lagged well behind the actual fielding of personnel, equipment, and facilities, with many adverse consequences. The Army uses the DOTMLPF (doctrine, organization, training, materiel, leadership and education, personnel, and

this decentralized, bottom-up process too often delayed collective action because key decisionmakers were not engaged until late in the process

facilities) model of force development captured in Field Manual 100–11, *Force Integration*, as the guide for creating and modifying U.S. force structure.¹³ There is good reason that the *D*—doctrine—comes first in that acronym. However, in Afghanistan it has been necessary to get as much force structure into the field as fast as possible due to the ongoing insurgency. As a result, there are major gaps in the base doctrine covering police force structure, roles, and missions. Likewise, the CSTC-A leaders who validate the force structure decisions and the training, equipping, and fielding priorities largely do so on the basis of their perception of the current situation, rather than basing those decisions on some coherent, commonly understood vision of the force’s endstate.

Not surprisingly, then, the development of the Afghan army is well ahead of the development of the Afghan police, as we are much more comfortable building an army than a police force, most often applying our own doctrinal template in building their army. The challenges of this process are exacerbated by a lack of accountability mechanisms, forcing

functions, deadlines, or other benchmarks and metrics for measuring progress holistically. The solution for this challenge involves establishing both the basic doctrine for the forces as well as creating and implementing any necessary accountability mechanisms and performance measures. Both of these efforts are under way now in Afghanistan. Section 6–64 of the COIN doctrine makes mention of this challenge, but it is notably thin in terms of proposing particular standards or evaluation techniques.¹⁴ As such, the mission leader will have to consult with the various players to define the standards and implement the corresponding assessment mechanisms.

Preparing Junior Leaders for Challenging Missions.

As a young company commander in the 1st Armored Division in the early 1990s, my professional challenges were fairly straightforward, and the Army had prepared me well for them. Like other young leaders, I fit comfortably into a structured and hierarchical environment that reinforced success while self-correcting any problems that emerged. Conversely, modern operations provide few if any similar opportunities for our junior leaders, in spite of the fact that it is they who have the most profound impact upon the success or failure of these decentralized operations. Our junior officers and noncommissioned officers (NCOs) are the key executive agents, but they typically lack the basic frame of reference and experience needed for interacting with the local power-brokers, indigenous trainees, local citizens, international players, and others who will determine the success or failure of the broader effort.

Furthermore, awareness of other cultures is not a strong suit in the U.S. military’s own organizational culture. So instead of tapping into the intelligence resources available to us through indigenous partners, too often we draw our own conclusions about the “good guys and bad guys,” in some cases equating speaking English with being a “good guy.” We also tend to impose Western models where they do not necessarily fit, setting up the new host nation organizations for failure and arousing resistance from our partners. A strength of the COIN manual is that it defines this problem while taking the first steps forward in changing the military’s basic mindset.¹⁵ In the case of the Afghan police reforms, we sought to overcome this institutional bias through intensive NATO-Afghan combined reform team training, conducted in

both Dari and English and involving mission planning with the U.S., allied, international community, and Afghan leaders who would actually carry out the reform tasks within the districts. This training and mission preparation covered a full spectrum of topics and tasks relevant to the reformers, from police operations to administration to Afghan culture to local intelligence, and was taught by subject matter experts from throughout the international community and the Afghan government. It is vitally important to listen to the indigenous leaders and local citizens on the ground in the reforming areas, and there is no substitute for the leader’s own consistent interaction with the personnel actually executing the mission.

Decentralized Execution. IW missions require leaders who can move easily between the strategic, operational, and tactical levels of planning and execution. So while my interactions with senior U.S., Afghan, and international leaders were vital steps, the truth was that these leaders’ agreements and directives would not go far without buy-in and vigorous execution by a wide variety of subordinate leaders spread throughout the operational theater. Furthermore, the ultimate success or failure of these operations would depend upon the mission preparation, comprehension of intent, and commitment to the mission by the captains, lieutenants, NCOs, and Soldiers carrying out reform and training missions. Since

the police force’s basic doctrine lagged well behind the actual fielding of personnel, equipment, and facilities, with many adverse consequences

we were using four different regional training facilities spread across Afghanistan for police overhaul, this decentralization meant working hard to ensure that all of the players had a common operating picture of the standards, procedures, and expectations of the FDD program.

Decentralized execution of these missions also means that we cannot expect cookie-cutter results, as variability in local circumstances, resources, and leadership will lead to a variety of outcomes. Accordingly, it is critical to achieve clear lines of

communication; common training and reform standards clearly articulated in a mission order; and centralized mission preparation and training. It is important to share lessons learned and tactics, techniques, and procedures as the process unfolds. This goal involves setting up a robust communications network, securing vertical and lateral coordinating authority across commands, and conducting recurring and widely distributed after-action reviews. Lastly, it is important to create and maintain knowledge centers—secure and nonsecure share points—where the most current implementation documents, such as inspection checklists, points of contact, and operations orders, are available as appropriate. In these IW environments, published documents tend to be out of date by the time they are approved and published. In the case of the ANP, the *Afghanistan National Police Smart-book* was published just prior to my arrival in theater, but it was far out of date by the end of my assignment 6 months later.¹⁶

Challenges of Training Indigenous

Forces. Training host-nation forces is hard work, particularly when the people are illiter-

ate and poor while the society has a history of government incompetence and corruption. Leaders need to guard against focusing exclusively on the training of the individual police officers, or the lower level units of the particular security forces. Additionally, it is important to build a force appropriate to that society's culture and circumstances, rather than trying to impose an inappropriate Western model or process. In Afghanistan, the German government had the original responsibility for developing the police forces, and it attempted to create a highly professional Western-style police force comparable to ones found in Europe. The approach fell short for a variety of reasons, but chief among them was the mismatch between the

the ultimate success or failure of these operations would depend upon the captains, lieutenants, NCOs, and Soldiers carrying out reform and training missions

German model and Afghan circumstances, as well as the low rate of production of trained personnel. Upon taking responsibility for police development, the United States initially replaced this focus on *quality* with an emphasis on *quantity*. That approach, while fielding individual police at a far higher rate, did nothing to address the ineffectiveness of the police leadership at the district level, or in the administration of the police forces at the national or provincial levels. Instead, leaders must take a *holistic approach*—or systems perspective on the operational environment approach—if there is to be any chance of overcoming the wholesale political, organizational, and societal challenges of creating a functioning and professional institution. The scope of the problem includes economics, cultural norms, family issues, pay, basic means of identification, illiteracy, and a range of other major challenges.

Impact of the Nonpermissive Security

Environment. As our COIN doctrine states, insurgents understand that the essential objective is to undermine the people's confidence in existing governing institutions. They use terror as a means to this end, and these nonpermissive security environments have a profound impact upon a leader's ability to reach out to the people and indigenous leaders who are partners in the enterprise. Given our usual force protection posture, it is common for U.S. forces to rush from one secured site to another, thus limiting their interaction with the average citizens and reducing the sense of actually living with their Afghan partners. The enemy understands the costs and other effects of their asymmetric threats, and they aim to create a "bunker mentality" within the security forces that further separates the people from their government and their protectors. Mission leaders must seek every opportunity to overcome this institutional bias, enhancing the interaction among the people, the indigenous government, its security forces, and our own troops. Ideally, we will find a way to work side by side with our counterparts so that eventually we can "leave quietly," having helped them to develop procedures, infrastructure, and relationships needed to enable their government and their security forces to function effectively. In the complex world of IW operations, that seamless transition represents the ultimate success.



Afghan National Army soldiers and Border Police confiscate weapons and ammunition found during search

U.S. Army (Johnny R. Aragon)

Implications

Much like Sun Tzu's *Art of War*, our COIN doctrine and the broader IW joint operating concept offer key guiding principles that help to inform the stability mission leader about the challenges of the IW operating environment and the planning and preparation needed for success in these critical endeavors. In some instances, the doctrine offers particular techniques that can be used to craft specific action plans, providing our leaders with a means to operationalize those key guiding principles to accomplish their mission. But in many more cases, the doctrine and operating concept merely redefine the nature of the problem at hand, as our leaders are challenged to figure out for themselves how to go about solving complex problems for which they may have little relevant training, experience, or background. Without question, the COIN doctrine and IW joint operating concept make important contributions to our joint force through their respective calls to leaders to rethink the basic approach to stability missions. However, we still have much work to do in preparing our leaders to provide the innovative, creative, and nuanced thinking that is required for mission success—thinking that goes far beyond the traditional mission preparation that has dominated our institutional training and leader development in the past. Accordingly, the next step forward for our joint force is to redevelop the institutional training base, and to identify and disseminate the tactics, techniques, and procedures needed to achieve success, thus enabling our leaders to appreciate the magnitude of the

challenge and to succeed in these soft power missions. Put another way, now is the time to work smarter, rather than harder, and to equip our force with the skills and tools needed to enable success in these complex, challenging, and vital tasks—while developing the specific, dedicated subject matter expertise within the force that will enable us to fall in effectively with the various theaters in which we will likely operate.

As a joint force we have made great strides in the last several years in this “change of mission,” and it is likely that our military will be called upon to conduct many more stability missions in the future, applying American soft power using the military's organizational capabilities as the coordinating delivery mechanism. So there is no question about the importance and relevance of these missions, but it is also clear that we have not quite gotten the model right just yet. The counterinsurgency manual and irregular warfare joint operating concept are fine first steps, and they outline the basic core principles that are central to mission success. But these documents are no substitute for innovative, enlightened, and informed leadership—leadership that must fully understand the cultural, political, and economic parameters of the particular IW environments in which they will serve. We simply cannot afford to continue to take an ad hoc approach to missions that will be increasingly central to U.S. national security interests in the 21st century.

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NOTES

¹ Department of Defense, *Irregular Warfare (IW) Joint Operating Concept, Version 1.0* (Washington, DC: Department of Defense, September 11, 2007), 1.

² See Andrew Wilder, *Cops or Robbers? The Struggle to Reform the Afghan National Police*, Afghan Research and Evaluation Unit Issues Paper Series (Kabul, Afghanistan: Afghan Research and Evaluation Unit, July 2007).

³ Police Mentor Synchronization Conference briefing slides, an unpublished and unclassified PowerPoint presentation from the Combined Security Transition Command–Afghanistan (CSTC–A), July 8, 2007; and Focused District Development Workshop, also an unpublished and unclassified presentation from the same command, August 27–28, 2007.

⁴ Zarar Hamad, *Strategic Capabilities Plan* (Kabul, Afghanistan: Afghan Ministry of the Interior, August 13, 2007), 6–13.

⁵ NATO Public Diplomacy Division, *Progress in Afghanistan: Bucharest Summit 2–4 April 2008* (Brussels: NATO Headquarters, April 2008), 10.

⁶ Wilder.

⁷ *The U.S. Army/Marine Corps Counterinsurgency Field Manual* (Chicago: University of Chicago Press, 2007), sections I–121 and I–122.

⁸ Ibid. See section 2 for a discussion of these groups.

⁹ Candace Rondeaux, “A Ragtag Pursuit of the Taliban: U.S. Effort to Train Afghans as Counterinsurgency Force Is Far from Finished,” *The Washington Post*, August 6, 2008, A1. Rondeaux quotes CSTC–A commander MG Robert Cone as saying that the police mentoring effort falls short by 2,300 mentors.

¹⁰ John A. Nagl, *Institutionalizing Adaptation: It's Time for a Permanent Army Advisor Corps* (Washington, DC: Center for a New American Security, June 2007).

¹¹ Hugh Heclo, “Issue Networks and the Executive Establishment,” in *The New American Political System*, ed. Anthony King (Washington, DC: American Enterprise Institute, 1978), 87–124.

¹² These challenges are outlined in International Crisis Group, *Reforming Afghanistan's Police* (Brussels: International Crisis Group, August 30, 2007).

¹³ Field Manual (FM) 100–11, *Force Integration* (Washington, DC: Headquarters Department of the Army, January 1998).

¹⁴ U.S. Army/Marine Corps Counterinsurgency Field Manual, 220.

¹⁵ FM 100–11.

¹⁶ Task Force Phoenix–Police Advisory Cell, *Afghanistan National Police Smartbook* (Kabul, Afghanistan: Task Force Phoenix Headquarters, June 30, 2007).



Marines provide marksmanship training to Afghan National Police recruits

DOD (Gene Allen Answorth III)

Effects-based Operations COMBAT PROVEN

By P. MASON CARPENTER and WILLIAM F. ANDREWS

In issue 51 of *Joint Force Quarterly*, the commander of U.S. Joint Forces Command (USJFCOM), General James Mattis, USMC, published an article indicating that the “ideas reflected in EBO [effects-based operations], ONA [operational net assessment], and SoSA [system-of-systems analysis] have not delivered on their advertised benefits and that a clear understanding of these concepts has proven problematic and elusive for U.S. and multinational personnel.”¹ The commander then directed, “Effective immediately, USJFCOM will no longer use, sponsor, or export the terms and concepts related to EBO, ONA and SoSA

in our training, doctrine development, and support of JPME.”²

The USJFCOM directive to “turn off” EBO concepts is not well advised. Although the command has vigorously pursued development of EBO concepts, over time efforts have rendered a valuable joint concept unusable by promising unattainable predictability and by linking it to the highly deterministic computer-based modeling of ONA and SoSA. Instead of pursuing a constructive approach by separating useful and proven aspects of EBO and recommending improvements, USJFCOM has prescribed the consumption of a fatal poison. General Mattis declares that “the term

effects-based is fundamentally flawed . . . and goes against the very nature of war.”³

We disagree. EBO is combat proven; it was the basis for the success of the Operation *Desert Storm* air campaign and Operation *Allied Force*. A very successful wartime concept is sound and remains an effective tool for commanders. It is valuable for commanders to better understand cause and effect—to better relate objectives to the tasks that forces perform in the operational environment. While there are problems associated with how EBO has been implemented by some organizations, they can be easily adjusted. As a military, we must understand the value of

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U.S. Air Force (Michael Best)

Airman measures crater to assess achievement of intended effects

EBO, address concerns in its implementation, and establish a way ahead to gain the benefits and avoid the potential pitfalls of the concept.

Value in “Effects”

The foundational concepts behind effects-based thinking represented by EBO are working and in use at all levels of command. EBO, stated simply, is a disciplined way to first understand the strategic objective, take a comprehensive look at possible courses of action, and then link tasks (through the effects they create) to that objective. Whether EBO is embraced by USJFCOM or not, commanders facing the complex environments and adversaries in Iraq and Afghanistan naturally gravitate toward discussing the “effects” of various actions, including kinetic, humanitarian, or information operations. All levels of command are well advised to think about effects; the joint community has been discussing the potential strategic effects of low-level individual actions in the decade that has passed since Marine Corps Commandant General Charles C. Krulak introduced the “strategic corporal” concept in 1999.⁴ The strategic corporal’s potential to create helpful or harmful effects indicates the necessity for broadminded, not narrow, deterministic thinking. The linking of action, effect, and objective must consider the entire range of possible outcomes: desired or undesired, direct or indirect. The joint and interagency communities’ payoff of effects-based thinking is the consideration of a broad range of potential actions to achieve the objective.

Recent updates to joint and Service doctrines reflect current practices and recognize the value of effects-based thinking. Joint Publication (JP) 3–0, *Joint Operations*, revised February 13, 2008, captures the essence of EBO by identifying effects as the link between

effects can be direct or indirect, intended or unintended; and effects constitute a major element of operational design:

The use of effects during planning is reflected in the steps of [the joint operational planning process] as a way to clarify the relationship between objectives and tasks and help the [joint force commander] and staff determine conditions for achieving objectives. Commanders and staffs can use commander’s intent, a systems perspective of the operational environment, and an understanding of desired and undesired effects to coordinate and promote unified action with multinational and other agency partners.⁶

Explicit joint use of this valuable concept has expanded rapidly. The 1995 version of JP 5–0 had no uses of the term *effects*, the 2002 version had 3, and the most recent version has 124. This joint recognition of effects-based thinking is EBO in everything but name and is an appropriate vector for joint doctrine.

Joint understanding should leverage ongoing Air Force development of EBO concepts. Air Force doctrine now explicitly uses the term EBO, and the ideas behind it mesh well with existing joint doctrine on effects. Air Force Doctrine Document 2 (AFDD 2), *Operations and Organization*, offers the joint community a pragmatic set of principles for EBO, well founded in the theory of war and tested in combat, that could greatly assist in reforming USJFCOM’s excesses in misapplying EBO. Recognition and application of several EBO principles outlined in AFDD 2 might have helped USJFCOM avoid the excesses that catalyzed General Mattis’ directive:

- *Effects-based operations recognize that war is a clash of complex adaptive systems.*
 - *Planning should always try to account for how the enemy will respond to planned actions.*
 - *Warfare is complex and non-linear.*
 - *Cause and effect are often not easy to trace.*
- *Effects-based operations focus on behavior, not just physical changes.*
- *Effects-based operations recognize that comprehensive knowledge of all actors and the operational environment are important to success, but come at a price.⁷*

These principles are a solid recognition of constants inherent to the nature of war,

emphasizing uncertainty and unpredictability, as well as a thinking, adaptive enemy. A great strength of this formulation of EBO is the focus on behavior, not physical changes. The importance of this principle is particularly relevant to ongoing operations in Iraq, where General David Petraeus declared the Iraqi people as the “key terrain.” Our actions are seeking lasting changes in their behavior.

EBO Concerns

General Mattis is justifiably concerned that “various interpretations of EBO have caused confusion throughout the joint force and among our multinational partners.”⁸ Part of the problem is terminology, part is application, and a final part is lack of understanding. Today, we have “effects” in joint doctrine, effects-based thinking and effects-based operations in Service doctrine, and an effects-based approach initiative to operations (EBAO) in the North Atlantic Treaty Organization (NATO). There is a common core concept among all these efforts, so emphasis should be placed on having the communities establish common lexicons and understandings.

The best path may be to develop and author a joint doctrine that includes EBO, providing common definitions but allowing for leading-edge concept development to “plug in.” The worst course of action is to foreclose on options brought to the table by joint, interagency, or international partners by a vocabulary that inhibits the fullest understanding of their contributions. If NATO is considering EBAO, why is the concept acceptable for our allies but not for the United States? If NATO’s EBAO has a stronger consideration of a “whole-of-government/comprehensive approach,” why do we not seek out the best of this approach and embrace it instead of shutting down the concept? It must be acknowledged that EBAO has stalled in NATO, but it stalled for one of the very reasons that we should continue to embrace it. The French generally oppose NATO efforts they believe will expand Alliance operations beyond traditional military roles and activities. They see EBAO as a viable method for NATO to consider alternatives beyond military operations and oppose application for that reason. In the Pacific, senior American officers recently returned from a Korean National Defense University seminar where global partner nations’ military officers indicated that Combined Forces Command has incorporated

recent updates to joint and Service doctrines reflect current practices and recognize the value of effects-based thinking

tasks and objectives: “tasks are executed to create effects to achieve objectives to attain an end state.”⁵ JP 5–0, *Joint Operation Planning*, mirrors and amplifies joint thinking on the subject. Effects link tasks and objectives;

EBO in all planning and assessment processes for the defense of the Korean Peninsula. This incorporation was supported by senior officers of multiple Services.

When EBO has been misunderstood, overextended, or misapplied in exercises, it has primarily been through misapplication or over-engineering, not because of EBO principles themselves. Specifically, the bundling of ONA and SoSA with EBO weighed down a useful concept with an unworkable software engineering approach to war. ONA and SoSA

the shortcomings of the engineering approach should not be grounds to terminate working EBO concepts reflected in Service, joint, and allied doctrines

may offer important contributions, but the predictive outcomes promised run contrary to the uncertainty inherent to many conflicts. The Services objected to USJFCOM's combination of these three efforts and had some effect with dampening some of the extreme claims and added disclaimers, but the three have been too closely linked for some.⁹ The shortcomings of the engineering approach should not be grounds to terminate working EBO concepts reflected in Service, joint, and allied doctrines. Instead, we would do better if we communicated the depth to which effects-based thinking can be realistically applied, the pitfalls of over-engineering the idea, and the limitations to avoid overextension.

General Mattis' critique implies that EBO is incompatible with the principles of war, mission-type orders, and decentralization. Although the U.S. military may have substantial problems adhering to some of these time-tested concepts, the root of the problem is not EBO. Our first principle of war is the "objective." But over the years, we have at times failed to understand and adhere to this principle. EBO promotes clear and detailed understanding of objectives. Only with clear understanding can a leader properly consider appropriate courses of action. As Clausewitz noted, the "first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish . . . the kind of war on which they

are embarking."¹⁰ He goes further to state, "No one starts a war—or rather no one in his senses ought to do so—without first being clear in his mind what he intends to achieve by that war and how he intends to conduct it. The former is its political purpose; the latter its military objective."¹¹ This is exactly the first step of EBO.

Practically made for mission-type orders, EBO is not locked to any specific level of conflict and may be used by commanders at any level. Similar to the ideas of "auftragstaktik" and mission-type orders, EBO provides an outline for understanding the environment and planning operations while allowing individual commanders to apply it to their unique context and determine their own strategy and tactics. Mission-type orders are essentially an application of EBO at the tactical level. EBO can become a detriment to timely or decentralized decisionmaking if it can only be applied when tied to massive staff- or software-driven analytical tools. Commanders will always have to find the balance between time available and the risks of uncertainty and make decisions based on the best information available at the time. All four Services praise decentralized action in their doctrine, but commanders at all levels (and in all uniforms) routinely pull decisions

to higher levels. Not "walking the talk" does not emanate from EBO; it more often springs from the irresistible temptation created by ever-increasing connectivity, as well as the commander's intolerance of risk for negative strategic consequences, that might result from ill-advised or inexpertly executed tactical actions. This dilemma points toward a new discipline for information-age decisionmakers rather than discarding EBO.

General Mattis' critique argues that we will need a balance of regular and irregular warfare competencies and we must better leverage nonmilitary capabilities and strive to better understand the different operating variables that make up today's more complex operating environments. We agree. EBO provides an appropriate tool for the commander to understand potential contributions of the widest array of military and nonmilitary capabilities. By explicitly considering the effects created by humanitarian, information, security, kinetic, or any other type of operations, space is created for the selection and integration of these diverse capabilities. EBO can be used as a template for best understanding a problem and is not predisposed to any given theater, situation, or solution set. If we are in error to think "what works (or does not work) in one theater is universally applicable to all theaters," then

Ministry of Defence—Royal Air Force (Gareth Davies)



Combined Air Operations Center on Arabian Peninsula acted as nerve center for air operations in Operation Iraqi Freedom

why would a joint force commander intentionally foreclose on a concept such as EBO that might illuminate alternative approaches?

A troubling aspect of General Mattis' critique appears to be pointing at the opposite by limiting options. The argument that "effects-based operations tend to be ineffective when used exclusive of ground maneuver"¹² and the revisionist "slap" at the value of precision aerial attack is oddly out of place in a cease-and-desist order regarding USJFCOM's approach to EBO if the directive is only out to eliminate conceptual confusion. If "precision fires alone" are judged by USJFCOM to have been "ineffective" in 1991, 1999, and 2003, we must wonder what standard is used to make this provocative judgment.¹³ No instrument of U.S. power is used in isolation, and no military operation is conducted exclusively in one domain, so the standard of judging any action "alone" is pointless. American Airmen might be excused for contemplating whether the general's edict is indirectly aimed at excluding the strategic use of airpower in order to drive an exclusive focus on "the three-block war" as the only future American way of war.

General Mattis' emphasis on adding friction to the enemy's problems and reducing friendly friction is well advised. However, operations other than ground maneuver (for example, aerial attack, cyberspace attack, nonmilitary actions) have the potential to do much more than simply add or reduce friction. Strategic effects can be generated by countless combinations of our instruments of power—some including ground maneuver, some not. While no one is suggesting certainty or absolute determinism, EBO is a tool that serves as a way to think of possible and likely effects in many areas. Because the enemy is smart and adaptive, an effort to limit joint concepts or approaches to war takes an arrow out of our quiver and makes us more predictable. A U.S. joint command should accommodate diverse approaches to war developed by the Services. The diversity of our ideas is a great American strength; it gives us more options and creates more problems for the enemy.

Addressing Concerns

General Mattis' directive will certainly correct any excesses in USJFCOM's work on effects-based operations, but it will also harm the valuable aspects of a working concept. Clearly, there is work to be done in embracing

while no one is suggesting certainty or absolute determinism, EBO is a tool that serves as a way to think of possible and likely effects in many areas

those valuable aspects, reconciling the differences in terminology, and perhaps most importantly managing expectations. Overpromising and under-delivering is a sure way to undermine a concept. Promising certainty in an inherently uncertain environment was a fatal flaw for one strain of EBO thinking. So where do we go to reform EBO development? These six steps are in order:

- Establish a common lexicon that unites the joint and allied understandings and use of EBO. Work toward a joint doctrine that provides common definitions but allows for leading-edge concept development to "plug in" and does not foreclose on any capability set.

- As NATO has done and as the USJFCOM Joint Warfighting Center advocates in the *Commander's Handbook for an Effects-Based Approach to Joint Operations* (February 26, 2006), adjust the term *effects-based operations* to *effects-based approaches to operations* across the joint community. This better reflects the concept of EBO and helps disassociate it from concepts that have been attached to EBO but are not really integral to it.

- Refine and incorporate the principles of EBO within joint doctrine as a starting point for defining what EBO can and cannot do, and how it must mesh with the nature of war.

- In preparation for further doctrinal discussion, compare the differing interpretations of EBO and identify best practices to embrace and shortcomings to avoid. Propagate these throughout concept and doctrine communities for wider incorporation.

- Disassociate EBO, ONA, and SoSA. Each must sink or swim on its own merits. Shortcomings in one concept should not bring down the others. Develop an appropriate level of analytical capability to support EBO with an improved understanding on the temporal and objective limits of analysis developed to support it.

- Educate leaders and staffs on the benefits of using an effects-based approach, its limitations, how to mitigate shortfalls, and avoid potential pitfalls. EBO should be used as an element of the commander and staff toolkit,

not as a panacea for all important decisions. Leaders should understand the times, levels of conflict, and context in which EBO is best used.

Effects-based operations will not go away; its efficacy and utility will ensure continued application. Discarding effects-based operations from our lexicon will not help bring our joint military community together. U.S. Joint Forces Command will continue to lead much of the development of our joint forces. But while its commander has the authority to do so within his own command, he should not unilaterally discard proven joint concepts without further discussion and coordination outside his command. U.S. Joint Forces Command plays too important a role in joint integration to make such a one-sided decision without additional discourse. Further development and improvement of effects-based operations will help prevent our military from throwing our combat-proven baby out with the bathwater. **JFQ**

NOTES

¹ General James N. Mattis, USMC, "USJFCOM Commander's Guidance for Effects-based Operations," *Joint Force Quarterly* 51 (4th Quarter, 2008), 106.

² Ibid., 108. Emphasis in original.

³ Ibid., 107.

⁴ Charles C. Krulak, "The Strategic Corporal: Leadership in the Three Block War," *Marines Magazine*, January 1999.

⁵ Joint Publication (JP) 3-0, *Joint Operations* (Washington, DC: The Joint Staff, February 13, 2008), iv.

⁶ JP 5-0, *Joint Operation Planning* (Washington, DC: The Joint Staff, December 26, 2006), III-12.

⁷ Air Force Doctrine Document 2, *Operations and Organization* (Washington, DC: Headquarters U.S. Air Force, April 3, 2007), 16-20.

⁸ Mattis, 105.

⁹ See, for example, the now-withdrawn Joint Warfighting Center Joint Doctrine Series Pamphlet 4, *Doctrinal Implications of Operational Net Assessment (ONA)*, February 14, 2004; Pamphlet 7, *Operational Implications of Effects-Based Operations*, November 17, 2004; and the *Commander's Handbook for an Effects-Based Approach to Joint Operations*, February 24, 2006.

¹⁰ Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (New York: Knopf, 1976), 102.

¹¹ Ibid., 579.

¹² Mattis, 106.

¹³ Ibid.

EBO

By PAUL K. VAN RIPER

There Was No Baby
in the Bathwater

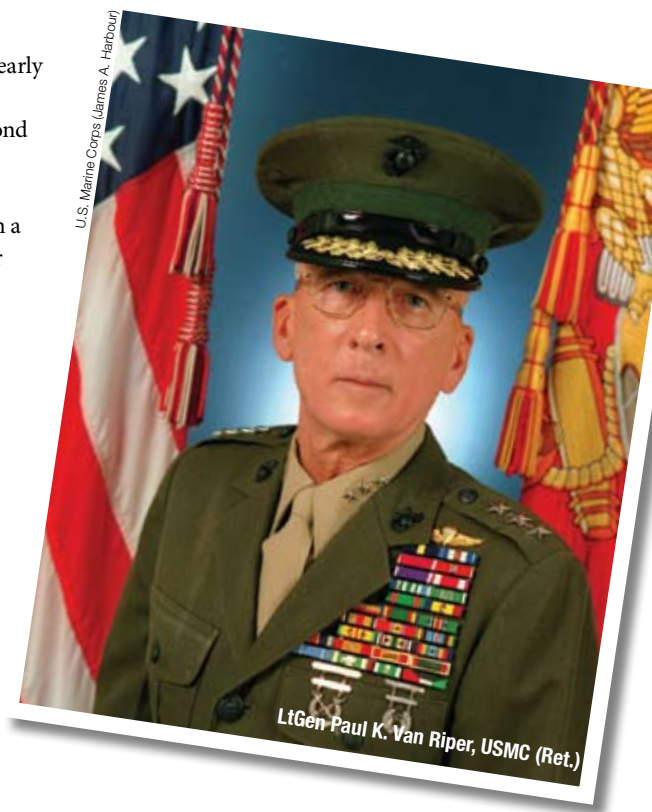
We should not be surprised that one of our most combat-seasoned and professionally informed leaders, General James Mattis, USMC, who commands U.S. Joint Forces Command (USJFCOM), recently issued a memorandum that calls for an end to the effects-based operations (EBO) nonsense that has permeated much of the American defense community for the past 6 years. Nor should we be surprised that other leaders with similar operational experience promptly applauded General Mattis' actions. They all saw effects-based operations as a vacuous concept that has slowly but surely undermined professional military thought and operational planning. One can only hope that the general's action, coupled with a similar effort by U.S. Army Training and Doctrine Command in 2007, will halt the U.S. military's decade-and-a-half decline in conceptual thinking.¹

Which EBO?

To understand the EBO mania that has distracted our defense establishment for far too long, we first must understand the differences between three varieties. The first variety of effects-based operations stems directly from the efforts of two exceptional Air Force officers, Colonel John Warden and then Lieu-

tenant Colonel David Deptula. In the early days of Operation *Desert Shield*, both officers pushed planners to move beyond the narrow focus of "joint munitions effectiveness manuals" (JMEMs) that describe only the *effects* expected from a particular weapon against a particular type of target. Warden and Deptula quite correctly demanded that targeting officers expand their horizons and determine how best to attack systems rather than single targets.² For instance, they might have asked a targeting officer to ascertain the best way to knock out a surface-to-air-missile battery without destroying every launcher or to degrade an electrical power grid without putting it out of action for years. To secure the results sought, Warden and Deptula focused the *effect* they desired on a system rather than simply listing targets for pilots to destroy.³

This is a logical and productive way to develop targeting plans, an approach we should applaud. Warden and Deptula, however, could have just as easily used other words to express the same idea. As examples, they might have labeled it as *outcome-based*, *result-based*, *impact-based*, *purpose-based*,



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or *intent-based operations* without losing any of the value inherent in the approach. If the two officers had used either of the latter two terms, they would have acknowledged that they understood the essence of *mission-oriented command*.⁴ Though any observer reviewing recent conceptual thought in the U.S. defense community would hardly know it, there is nothing magical or unique about the word *effect*. Fundamentally, Warden and Deptula were working to ensure that everyone involved in planning and executing an operation understood *why* they sought to achieve certain *ends*.

Despite its utility, this variety of effects-based operations is only effective with manmade systems that have an identifiable and tightly coupled structure, such as integrated air defenses, distribution networks, and transportation complexes. The method has little utility against dynamic systems such as economies and social groups whose elements are only loosely coupled and with relationships that are frequently unclear. Nonetheless, some proponents went on to claim that what began as an effects-based targeting method should extend to operations as a whole and even to war.⁵ That this suggestion survived and was widely promulgated is sad testimony to the fact that many military officers have

some proponents went on to claim that what began as an effects-based targeting method should extend to operations as a whole and even to war

little understanding of how interactively complex systems work.⁶

The second variety of effects-based operations stems from the U.S. Army's renaming of the fire support coordination center as the effects coordination cell and fire support coordinator as the effects coordinator. The Army wanted to stress that beyond coordinating the maneuver of units with supporting fires, operations officers and fire support officers needed to consider other means and methods such as psychological operations, deception operations, electronic warfare, and so forth, and to coordinate them with maneuver and fires. This was not a new idea; the requirement for this type of coordination

has been part of doctrine since the Korean War.⁷ Every competent operations officer and fire support coordinator recognizes his responsibility to orchestrate all means and methods effectively and efficiently. Regrettably, many joint forces soon picked up on the new name, and *effects coordination cells* became the prevalent term. Things became even more muddled when the expanded and flawed version of Warden and Deptula's effects-based operations found its way into the effects coordination cells of operational units. Eventually, the Army recognized more was lost than gained by its renaming effort, and in early 2007, the Army directed a return to the original terms of fire support coordination center and fire support coordinator.⁸ We can only hope that the joint community makes the same decision soon.

The third variety of effects-based operations originated in the USJFCOM J9 directorate in late 2000. It is the most egregious of the three varieties and the one that has most damaged operational thinking within the U.S. military. In essence, concept developers in the J9 asserted that through detailed study of an enemy's systems—identified as political, military, economic, social, infrastructure, and information (PMESII)—planners could determine what effects they might achieve by taking various actions against specific links and nodes in those systems. Furthermore, they claimed that the practice would allow planners to determine how the effects of actions on one system would affect one or more of the other systems. They argued that the United States could use diplomatic, informational, military, and economic (DIME) tools to carry out these actions; hence, the often-heard grating and acronym-laden statement that we would “employ our DIME against an enemy's PMESII to achieve desired effects.” This claim supposedly was supported by a technique known as operational net assessment (ONA), “the tool that identifies the correct targets, links, and nodes that will create the desired effect.”⁹ Concept writers went on to state, “ONA aims to provide a thorough understanding of the total effect [on an adversary] and how to achieve it.”¹⁰

Operational net assessment itself purportedly was accomplished through a procedure called system-of-systems analysis (SoSA), which “enables us to set environmental conditions to force the target to adapt and to choose only options that we make available.”¹¹ If only military planning and combat operations

were conducted so easily. Experienced officers must wonder if the authors of these words are unaware of the hubris of such a declaration. In actuality, SoSA relies on the techniques of formal systems analysis. Vietnam War veterans quickly recognized SoSA as virtually identical to the analytical methods that Secretary of Defense Robert McNamara foisted upon the U.S. military in the 1960s with so many disastrous results.

USJFCOM proponents of effects-based operations appeared oblivious to the realities of interactively complex systems. These nonlinear systems are not ones in which the cause and effect are straightforward, but ones in which effects cascade throughout the system in unpredictable ways, causing the emergence of wholly unanticipated additional phenomena. Efforts to modify ecological systems have made scientists fully aware of the folly of attempting to affect such nonlinear systems through discrete actions. The nearly limitless ways that an action might ricochet through an interactively complex or nonlinear system mean that for all practical purposes, the interactions within the system exceed the calculative capacities of any computer to follow, at least in any meaningful way. The numbers are so large that even the most advanced computers would take billions of years to process them.¹² Yet within the J9, developers were undeterred as they built ever more elaborate procedures to carry out the so-called system-of-systems analysis. We might suspect that the contractors who wrote the software programs to support this fundamentally flawed idea were motivated more by the bottom line than the actual value of the capabilities delivered. In short, supporters of ONA and SoSA argue for a pseudoscientific approach to operational planning.

As the opponents of the USJFCOM version of effects-based operations marshaled their evidence, in particular the commanding generals and staffs of the U.S. Army Training and Doctrine Command and U.S. Marine Corps Combat Development Command, the J9 concept writers began to lower their sights, backing away from unsupportable claims. Rebuffed, they labored to salvage something

J9 concept writers began to lower their sights, backing away from unsupportable claims

from the concept.¹³ To the dismay of many military professionals, promoters of cockamamie EBO concepts prevailed on writers of joint doctrine to include several of its key components in Joint Publication (JP) 3-0, *Joint Operations*, and JP 5-0, *Joint Operation Planning*. Most significant among the materials included are a distorted description of system theory, the flawed PMESII construct, and a new and puzzling description of the association of effects to objectives, missions, and tasks.

The description of systems in JP 3-0 and JP 5-0 is incoherent, as it mixes the attributes of structurally complex (linear) and interactively complex (nonlinear) systems, ascribing to both the notion of *nodes* that the joint force can “target,” and *links* (“the behavioral or functional relationships between nodes”) that the joint force can “cut.”¹⁴ In structurally complex systems, nodes and links exist and are relatively static; thus, forces can target and cut those that are identifiable. In interactively complex systems, the relationships between elements are constantly in flux, and links—as conceived of by EBO advocates—are often not apparent and are frequently transitory. Finding nodes to destroy and links to cut in a meaningful way in these kinds of systems is usually a fruitless undertaking. Moreover, even if a node is destroyed or a link cut, these systems are self-healing, allowing them to continue functioning with no apparent degradation. A cursory review of the vast literature on systems theory and nonlinear dynamics would have made the J9 concept writers aware of the invalid basis for their effects-based operations concept.

Figure IV-2 in JP 3-0 and figure III-2 in JP 5-0, both titled “The Interconnected Operational Environment,” depict a Venn diagram with six overlapping circles labeled *political*, *military*, *economic*, *social*, *information*, and *infrastructure* with a web of links and nodes within and among them.¹⁵ This is the same diagram that EBO advocates used to illustrate SoSA, giving lie to the claim that this methodology is no longer part of the approach. JP 3-0 and JP 5-0 promulgate the EBO advocates’ ill-conceived ideas minus only the names: ONA and SoSA.

Even more confusing is the use of the term *effects* in these two doctrinal manuals, defined as “a physical and/or behavioral state of a system that results from an action, a set of actions, or another effect.”¹⁶ In plainer English, effects are the results, outcomes, products,

consequences, or perhaps impacts of actions undertaken by the joint force. Seldom in recent years have careful listeners heard any of these synonyms used in professional discussions—the effects nomenclature has become a mantra. Sadly, as a result, defense leaders in their writing and speech have voluntarily given up the nuances possible with various other terms. All but forgotten is the fact that all these terms simply identify the *ends* desired.

Operational concepts existing prior to the EBO craze were founded on Clausewitzian thought, especially the master theorist’s recognition of the need to clearly identify desired *ends* and to tie them to available *means*. Clausewitz repeatedly called attention to the absolute necessity of connecting strategic and tactical ends to the higher aim or purpose. Over the past half-century or so, notable military thinkers such as B.H. Liddell Hart, J.C. Wylie, and Colin Gray have pointed repeatedly to the importance of the *ends-means* paradigm.

Ends are ends, plain and simple! What we title them may help or hinder their meaning and our understanding, but ultimately they remain ends. The longstanding naming convention for ends in the U.S. national security community has extended from *goals* to *objectives* to *missions*, with the latter’s inherent *tasks* and associated *intent*s (see figure 1). At the national level, ends are expressed most often as goals. To accomplish these goals, national leaders assign objectives to various organizations. Subordinate

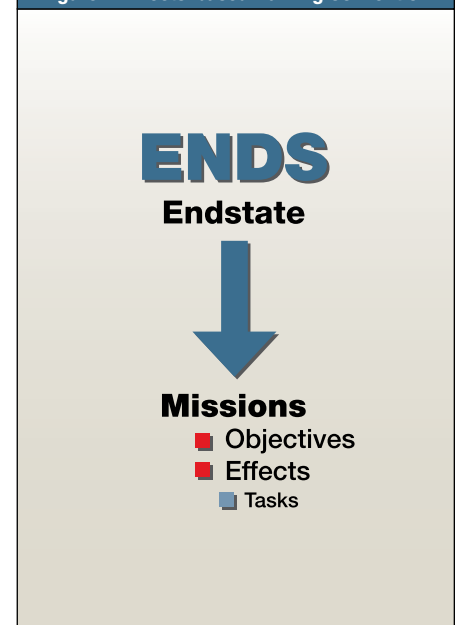
objectives are nested under higher objectives as the expression of desired ends filters down through the chain of command. At some point, a leader assigns a military unit a mission designed to accomplish an objective. There appears to be no hard and fast rule as to when it is time to convert an objective to a mission, but most operational and tactical commanders expect to receive missions.

As described in the previous paragraph, with no worthy explanation as to the reason, the authors of JP 3-0 and JP 5-0 have added effects to the long-standing *ends* naming convention. Even more perplexing, missions, which have always consisted of tasks with associated intents, now include objectives and effects, while intents—the very heart of mission-type orders—are eliminated (see figure 2). The creators of this new and confusing naming convention never reveal its supposed advantage over the traditional one. Even more baffling, when these inventors provide examples of effects, they merely use the past tense of a verb that traditionally would be the task. For instance, an effect is “defeated Red’s attack,” which of course is completion of the task “to defeat Red’s attack.” Justifiably, any American taxpayer would cringe knowing that the U.S. military spent tens of millions of dollars between 2000 and 2007 to conclude that using the past tense of a verb in some mysterious way improves U.S. military planning and operations. Is there any doubt why so many skeptics rose to challenge this meaningless change to existing methods?

Figure 1. Traditional Naming Convention



Figure 2. Effects-based Naming Convention



What Have We Lost?

The intellectual renaissance spurred by the failures in the Vietnam War and led by Admiral Stansfield Turner, USN, General Donn Starry, USA, and General Al Gray, USMC, during the mid-1970s into the late 1980s produced a solid body of doctrine and a powerful but concise professional lexicon. This renaissance was built on a deep appreciation of history and a thorough understanding of war's fundamental nature. The operational concepts created during this period were founded on Clausewitzian thought, especially the master theorist's recognition of the need to clearly identify desired *ends* and to tie them to available *means*. Central to these concepts was the notion that telling a commander the reason—or *why* he was to accomplish an assigned task—was imperative if he was to take the initiative when circumstances at the scene of action changed. Foremost, he was

any taxpayer would cringe knowing that the military spent millions to conclude that using the past tense of a verb improves planning and operations

to understand that the purpose or intent of a task is always more important than the task itself. In essence, the achievements at the many points of contact with an enemy are the culmination of *ends* that have traveled from national *goals* through several echelons of command *objectives* to a hierarchy of unit *missions* with their integral *tasks* and *intent*s. Again, see figure 1.

The USJFCOM version of effects-based operations is a “non-idea” that survived far too long. Not only did it undermine well-founded conceptual ideas based on mission-oriented command, but it also confused the U.S. military's officer corps and diverted scarce resources and intellectual energies away from truly important issues, the most critical of which is studying insurgencies. The actual costs were significant; the opportunity costs were enormous. General Mattis and the many senior officers in his corner—all tested in the crucible of battle—have done our nation a great service, righting an intellectual vessel that was on its way to drowning real

professional thought in the U.S. military and the wider defense community.¹⁷ They deserve our thanks!

With the effects-based operations distraction now behind them, U.S. military officers can turn their attention to resolving real conceptual and operational challenges rather than miring themselves in unsound premises aimed at manufactured problems. More importantly, they can once again effectively employ the simple elegance of mission-oriented command as they face our nation's enemies. **JFQ**

NOTES

¹ Combined Arms Directorate, U.S. Army Combined Arms Center, “Army Doctrine Update,” memorandum, February 24, 2007.

² Williamson Murray, *Air War in the Persian Gulf* (Baltimore: The Nautical & Aviation Publishing Company of America, 1995), 16.

³ There is anecdotal evidence that Colonel Warden may have borrowed the idea of focusing on individual targets from the Warfare Analysis Department, Naval Surface Warfare Center, Dahlgren Division, which was a predecessor of the Joint Warfare Analysis Center.

⁴ *Mission-oriented command* and *mission-type orders* were rediscovered by concept developers and doctrine writers in the 1980s and soon became a staple of Service and joint operational planning. I say *rediscovered* because we can easily trace this approach back to the 19th century and Helmuth von Moltke (“the Elder”). The central feature of mission-type orders is the requirement to relate each *task* in a mission statement to an overarching *purpose* or *intent*. For example, if a task contained in a mission statement is to “seize a bridge over a river,” the intent might be “to prevent the enemy from moving south.” The latter informs the commander assigned the task of seizing the bridge that he needs to be alert to other ways the enemy might cross the river—perhaps a nearby ford or barges—and to deny this use. Similarly, a commander tasked to capture an airfield would benefit if he knew that the purpose of that task was to enable the air-landing of additional forces, forewarning him to the necessity of avoiding excessive damage to runways and the control tower.

⁵ As an example, see David A. Deptula, *Effects-Based Operations: Change in the Nature of Warfare* (Arlington, VA: Aerospace Education Foundation, 2001).

⁶ For an excellent discussion of interactively complex systems, see Robert Jervis, *System Effects: Complexity in Political and Social Life* (Princeton: Princeton University Press, 1997).

⁷ Jonathan B.A. Bailey, *Field Artillery and Firepower* (London: The Military Press, 1989), 270–271.

⁸ Combined Arms Directorate.

⁹ U.S. Joint Forces Command, *Concept Primer: Operational Net Assessment (ONA)* (Norfolk: U.S. Joint Forces Command, October 2003), 1.

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² We can use the game of chess to explain the scope of the problem: A chess board has only 64 squares and 32 pieces. Players are limited by the rules of the game in the ways they can move the various pieces. Therefore, since the “system” is bounded, it seems possible, though perhaps difficult, to understand the many ways a game might unfold when one play is different in every game. Mathematicians estimate the number is 10¹²⁸. This is an extraordinarily large number, but how large is best illustrated by the following lesser number, 10⁸⁰, which is the number of atoms in the universe. By many orders of magnitude, there are more potential discrete games of chess than there are atoms in the universe. Consider then the challenge of determining how the effect created by an action might cascade through an economic system.

¹³ Proponents began to draw back from the extremes of EBO formally when they renamed the concept the *effects-based approach*, disassociated the concept from ONA, and made other adjustments in the *Commander's Handbook for an Effects-Based Approach to Joint Operations*, dated February 24, 2006. The handbook introduced new organizations and procedures designed to allow for implementation of an effects-based approach. These procedures added steps and products to the planning process, making it overly cumbersome.

¹⁴ Joint Publication (JP) 5–0, *Joint Operation Planning* (Washington, DC: Joint Chiefs of Staff, December 26, 2006), III–18.

¹⁵ JP 3–0, *Joint Operations* (Washington, DC: Joint Chiefs of Staff, September 17, 2006), IV–5; and JP 5–0, III–17.

¹⁶ JP 5–0, III–12.

¹⁷ At the center of the EBO faction were far too many contract concept developers. Many had never experienced combat. More than a few had never worn the uniform. In a sense, the U.S. military—USJFCOM in particular—outsourced much of its intellectual activity for the good part of a decade with dire consequences.

VICTORY

From the Prism of Jihadi Culture

By JEFFREY B. COZZENS

Victory in warfare, classically defined by Carl von Clausewitz, can be reduced to a simple formula: one protagonist forced to fulfill another's will. Though a straightforward maxim on the surface, when applied to the West's struggle with the global jihadi movement—the religio-social movement that gave rise to the al Qaeda strategy of attacking enemies “far” and “near”—the construct of victory begs demanding, complex, even soul-searching questions about metrics: How does the West know when it is winning? What does winning mean to our multi-echeloned, atomized foe? Addressing these queries holistically mandates excavating the layers of jihadi strategic theory and giving militant Islam's primary sources their due. In so doing, we find that the “will” of the global jihadi movement—insofar as one can speak of it in the singular—has not only strategic, instrumental components, but also a noninstrumental cultural or “expressive” side. Victory for the global jihadi movement is more complex and multifaceted than we might suppose.

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Boys collect scrap metal in Kabul

UN (Eskinder Debebe)



Following cursory examinations of both Western victory metrics against al Qaeda and conflict's inherent duality, this article refers to primary jihadi sources to develop a more comprehensive understanding of what winning means from the perspective of the global jihadi movement. There have been few, if any, attempts to approach this issue through the prism of this adversary's culture. However, since the core of any religio-social movement comprises attitudes, values, and beliefs (the essence of culture), this methodology appears logical. In the end, the exponents of global jihad inform us that victory is more than simply holding territory or attaining clearly defined political objectives; a parallel and complementary strategic understanding of victory flows from the culture of global jihad. Defining and winning the "war of ideas" cannot be disassociated from understanding jihadi culture and its notions of victory.

Our Victory, Jihad's Defeat?

There are multiple potential starting points for an analysis such as this. However, to evoke the desired contrast between Western security policy and global jihadi culture, distilling key Western counterterrorism policies advanced after 9/11 to illuminate victory metrics against al Qaeda appears a logical first step. In so doing, we find that success is generally measured by:

- killing or capturing terrorists
- denying safe haven and control of any nation
- preventing access to weapons of mass destruction (WMD)
- rendering potential targets less attractive through security
- cutting off resources
- in the long term, winning "the battle of ideas."

Few would question these objectives. Yet when turned on their heads, these metrics simultaneously illustrate how Western governments define victory for the global jihadi movement. The terrorists win if:

- they remain alive and free to plan operations
- their safe havens remain "safe"
- they capture a state
- they gain access to WMD
- they succeed in the war of ideas.

To these we could add the related goals of expelling Western forces from the Muslim world, toppling marginally Islamic regimes, and eventually, rebuilding the caliphate from Southeast Asia to Spain. A vast body of Western counterterrorism literature, policy statements, and al Qaeda pronouncements highlights many of the same metrics implicitly and explicitly.

However, warfare by its nature has multiple, often blurred and intangible fronts, enemies, and definitions and degrees of victory. This is even truer when combatants such as al Qaeda are motivated by simultaneously global and local grievances, and their enemies span the spectrum from worldliness, to apostate coreligionists, to worldwide conspiracies. As shall be demonstrated, we learn from the global jihadi literature that victory is synonymous with more than simply staying alive and free, controlling territories, gaining access to weapons of mass destruction, and so forth. For the West to effectively develop and chart its own metrics of victory against this existentially asymmetric foe—especially when it comes to fighting the war of ideas, which remains ambiguously defined—it needs to further excavate the global jihadi movement's version of winning. Just as al Qaeda refuses to play by Western rules of engagement, flaunts traditional just war doctrine, and, in the words of jihadi strategist Abu Ubeid al-Qurashi, "like a ghost, appears

and disappears"¹ in a blatant disregard for battlefield linearity, our understanding of their success or lack thereof is incomplete. Without exploring what winning means from *their* perspective—essential to deconstructing the culture of global jihad at its weakest points—Western bureaucratic, technical, and predominantly secular inclinations may give rise to tactical victories and strategic failures.

Duality of Warfare

Before discussing the global jihad's alternative victory metrics, it is necessary to touch upon the idea of duality in conflict—or as Christopher Coker describes, its "expressive" and "instrumental" components.² If warfare is multidimensional, victory must be as well.

Western bureaucratic, technical, and predominantly secular inclinations may give rise to tactical victories and strategic failures

Writing about the nature of future conflict in *Warrior Politics*, Robert Kaplan observes that the "ancientness of future wars has three dimensions: the character of the enemy, the methods used to contain and destroy him, and the identity of those beating the war drums."³

UN (Yutaka Nagata)



Egyptian and Israeli generals discuss disengagement of forces, Egypt, January 1974

Conflict today—especially that shaped by socially reinforced notions of “Ultimate Concern”—is rarely reducible to politics instrumentalized by force. Identity, belief, and culture—the building blocks of expressive warfare—contrast the political ends and largely technical means of Western military campaigns, or instrumental war. As Coker argues in *Waging War without Warriors*:

The problem is that we so want to understand violence primarily in utilitarian, rational terms, in terms of means and ends, that the question of what violence “signifies,” “says,” or “expresses” seems, at best, to be of secondary importance. . . . In instrumentalizing war as much as it has, the West has reached a point at which it no longer understands the expressive element. . . . But what the warrior is, is no less important than what he or she does. Expressive violence is not only aimed at an enemy but also affirms a way of life.⁴

In other words, the violence of nonstate combatants such as al Qaeda cannot be disentangled from their culture—that is, their attitudes, values, and beliefs—even while it also includes strategic political goals. Bruce Hoffman and Gordon McCormick touched on this premise when they described suicide bombings in Iraq as “signaling,”⁵ and Faisal Devji explored it in his multidisciplinary essay on jihadi culture.⁶ If these theories are credible, then we should look not only at the instrumental components of the global jihadi movement’s definition of winning, but also at its parallel, expressive objectives. To do so, we must assess victory through the prism of jihadi culture.

Jihadi Victory Metrics

The following (admittedly incomplete) list, distilled from the writings of some of the most popular militant writers,⁷ outlines nine less apparent (though arguably no less important) jihadi conceptions of victory. The movement’s strategic goals mentioned earlier could be seen as tangible expressions of this parallel track.

Metric 1: Victory Can Be Understood as the Perpetuity of Fighting. The influential Saudi militant, the late Yusuf al-ʿUyayree, elucidates this long-term perspective in his works *Meanings of Victory and Loss in Jihaad* and *The Future of Iraq and the Arabian Peninsula*. This understanding is a cultural pillar of the global jihadi trend, which, based on its

interpretation of the sacred sources, sees itself as the true, victorious sect that will fight until the end of days.

This idea of victory is also apparent in the Creed of the Global Islamic Media Front, a primary outlet of the global jihadi movement:

We believe that the victorious sect will be the sect of learning and jihad.

We believe that jihad will continue until the Day of Judgment, with every pious man or wrongdoer, in every time and place, with an imam or without an imam. It will continue with a single individual or more. No tyrant’s injustice or naysayer’s discouragement will halt it.

We believe that jihad in God’s way is the legitimate and sound way that will enable the Ummah to resume an Islamic life and establish a well-guided caliphate according to the program of the Prophet.⁸

Metric 2: Victory Is Found in Obeying the Obligation to Fight Islam’s Enemies, Not in the Outcome of Battle. Anwar al-Awlaki—formerly associated with an Islamic center in Falls Church, Virginia, and a past chaplain at George Washington University⁹—delivered a lecture on al-ʿUyayree’s works in which he explained this understanding in poignant terms. In the transcription of his lecture, titled “Constants on the Path of Jihad,” al-Awlaki stated:

Victory is not what we are accountable for; we are accountable for whether or not we are doing what Allah commands. We fight Jihad because it is fard [obligatory] on us; we are not fighting to win or loose [sic]. . . . If we broaden our perspective, we will come to realize that whoever rides the peak of Islam (Jihad) [parentheses and emphasis in original] can never loose [sic] and will always win but not always win in physical victory.¹⁰

This definition has implications for jihadis at the collective and individual levels. At the collective level, adhering to this duty results in overt obedience to and therefore guidance by Allah.¹¹ When mujahideen (those who believe they are fighting in God’s path) embrace this obligation and absorb this guidance, tangible strategic success for the *ummah*—the global Muslim community—is believed to follow. The establishment of the state of Israel and regional regimes is generally viewed by jihadis as a byproduct of neglecting this obligation.

At the individual level, a rational decision to exchange love for worldly comforts for the love of battle and to overcome Satan and those who hinder one from fighting represents more than simple obedience: it is a purifying, ennobling act. One hour of jihad in Allah’s path, according to a famous *hadith* beloved by Abdullah Azzam, architect of the Afghan jihad, is better than 60 years of praying.¹² As case studies of jihadis in the United Kingdom and elsewhere attest, some young Islamists also see jihad as a social rite of passage.¹³

Metric 3: The Institutionalization of a Culture of Martyrdom Is a Victory. According to exponents of global jihad such as Abu Ayman al-Hilali, martyrdom is the greatest victory a mujahid can have. Al-Hilali and others argue that martyrdom operations offer a direct route to Paradise, the most effective means to strike adversaries, and the loftiest form of witness.¹⁴ And as illustrated by West Point’s Sinjar Records, a collection of nearly 700 foreign fighter biographies from Iraq, the idea that martyrdom is synonymous with victory for many jihadis goes well beyond theory.¹⁵ When al Qaeda in Iraq “bureaucrats” queried foreign fighters as to why they came to Iraq, or what duty they hoped to perform, 217 of the 389 who responded (56.3 percent) indicated a desire for martyrdom, whereas 166 projected their roles as “fighter” (or something similar).¹⁶

Metric 4: Victory Comes by Pinpointing Islam’s Enemies through the Refining Process of Jihad, and Thus Maintaining Its Identity. Sayf-ad-Din al-Ansari, another online jihadi strategist, argued this point explicitly in a 2002 essay on the 9/11 attacks:

Our Islamic community has been subjected to a dangerous process of narcosis. As a result, it has lost the vigilance that comes from faith and fallen into a deep slumber. The most dangerous consequence of this is that most Muslims can no longer distinguish between their enemies and their friends. The fallout from choosing peace and normalization . . . has caused a great confusion of ideas. The resultant situation poses a genuine threat to our very identity.

[The 9/11 attacks] came to move this war from the shadows out into the open, to make the community aware of the enemy. It revealed the perils that surround us in a way that everyone can understand. The . . . attacks succeeded in laying bare the enemy’s soul and . . . talk of a new crusade with all the historical baggage the phrase entails. It became clear to everyone that this is a campaign against Muslims more than

... a war against the mujahidin. . . . Islam itself is the target.

The raid showed just how fragile is the supposed coexistence of Muslims and Crusaders.¹⁷

Fighting, al-Ansari argues, is equivalent to maintaining the *ummah*'s identity against internal and external threats; it is the ultimate means to enjoin the good and forbid the evil. As the ever-popular jihadi author Muhammad al-Maqdisi contends in *The Religion of Abraham*, it is simply not enough to renounce tyrants verbally.

Metric 5: Establishing Pride, Brotherhood, and Unity in the Face of Threats to the Ummah Is a Form of Victory. Abu Ubayd al-Qirshi, another popular militant "strategist" who wrote a pseudo-scholarly essay complete with notes, "The Impossible Becomes Possible," advances this point forcefully:

With the New York and Washington raids, al-Qa'ida established a model of a proud Islamic mentality. This outlook does not view anything as impossible.

Al-Qa'ida embodies Islamic unity. Blood from all the countries of the Islamic community has mixed together in the jihad that al-Qa'ida leads with no distinction between Arab and non-Arab. In and of itself, this is a step on the road to Islamic unity and the destruction of the . . . colonialist treaties that have torn the body of the Islamic community apart.

[W]ith absolute trust in God, a willingness to die in God's path, patience, and generosity of spirit . . . these qualities . . . undoubtedly lead to victory.¹⁸

While generally a pragmatic author concerned more with "jihadi strategic studies" than theology, al-Qirshi's view of brotherhood and unity echoes the perspectives of many *salafis*, militant or otherwise: preserving the integrity and purity of Islam in the face of contemporary intra-Islamic strife (*fitnah*), syncretistic practices, and external threats is of paramount importance. None of these can be confronted apart from a unified and self-sacrificial methodology (the latter of which al-Qirshi and al-Qaeda believe to be associated with violence and martyrdom).

Metric 6: Creating a Parity of Suffering with Islam's Enemies—Especially the Jews and Crusaders—Is a Victory. According to Saudi cleric Nasr al-Fahd and al-Qaeda spokesman Suleiman Abu Geith (among others), upholding the *shari'a* principle of "repayment in kind" (*al-mu'amala bil-mithl*) not only justifies but also demands the murder of millions

according to exponents of global jihad, martyrdom is the greatest victory a mujahid can have

of al-Qaeda's enemies to avenge the millions of Muslims killed at their hands.¹⁹ Al-Fahd—whose well-known *fatawa* (religious opinions) concerning the "legitimacy" of the Taliban regime and the destruction of the Buddha statues in Afghanistan were widely circulated online—published on May 21, 2003, a *fatawa* justifying the use of nuclear weapons (as well as other weapons of mass destruction) against the "enemies of Islam."²⁰ Al-Fahd wrote:

Tribal leaders in Iraq are turning away from extremist agendas



982/ Combat Camera Company (Abn) (Bronco Suzuki)

The attack against it by WMD [which al-Fahd explicitly defined as “nuclear, chemical, or biological”] is accepted, since Allah said: “If you are attacked you should attack your aggressor by identical force.” Whoever looks at the American aggression against the Muslims and their lands in recent decades concludes that it is permissible. . . . They have killed about ten million Muslims, and destroyed countless lands. . . . If they would be bombed in a way that would kill ten millions of them and destroy their lands—it is obviously permitted, with no need for evidence.

Terrorism—including that involving WMD—is seen by authors such as Abu Geith and al-Fahd as being among the most expedient methods for achieving the reciprocal suffering (and thus, victory) for which their reading of Islamic law calls.

Metric 7: Victory Is Seen in the Maladies Afflicting God’s Enemies, Especially Economic Recession and Natural Disasters.

Al-’Uyayree writes that economic hardships among Allah’s enemies are sure signs of His favor upon the mujahideen and harbingers of their impending victory.²¹ Furthermore, we see in the writings of other extremists that natural disasters such as Hurricane Katrina are believed to foreshadow the imminent collapse of the West and victory for the Islamic vanguard over the unbelievers.²²

Metric 8: The Presence of Miracles in Jihad Foretells of Victory for the Mujahideen.

Abdullah Azzam’s book on miracles in the Afghan jihad, *The Signs of Rahman in the Jihaad of the Afghan*—a “most viewed” publication on the extremist-leaning Makhtabah.net online bookseller—illustrates this point, as does a mountain of online jihadi writings covering the “miraculous events” of the battle of Fajujah, and the supernatural in contemporary Afghanistan.²³

Metric 9: The Promotion of the Heroic Template Is Itself Victory. The jihadi literature reminds us ad nauseam that victory does not depend on individual leaders; those who trust in men rather than Allah will eventually suffer moral, if not material, defeat.²⁴ Instead, victory comes by emulating the “heroes” of fighting—those who leave everything behind to make their blood cheap for the *ummah*—and by enduring the temporary and refining trial of their absence.²⁵ We are reminded that jihadi leaders themselves aspire to martyrdom when Allah wills it. As a testament to this notion, we see the wills, elegies, and eulogies of jihadis published and distributed on

an almost industrial scale. Their message is consistent: Obey Allah as I did, avenge the *ummah*, and enter Paradise.

Implications

Victory, as defined by the global jihadi movement, has expressive components that flow from its culture. Analyses of the movement’s trajectory devoid of this recognition are incomplete and will set the West up for failure in the war of ideas. As Al-’Uyayree, the former leader of al Qaeda in the Arabian Peninsula, observed, “Many . . . people squeeze the meanings of victory into victory on the battlefield, and this is an error; for there is no doubt that all meanings and types of victory must be understood along with this one.”²⁶ The following discusses some of the implications of these culturally defined jihadi victory metrics for Western militaries and intelligence communities.

The identification of these metrics illuminates many of the very ideas we must counter in the war of ideas—an epochal proposition worthy of an analysis far exceeding the scope of this article. Indeed, the West cannot contend effectively in this “war,” let alone define victory against the global jihadi movement, if it does not fully understand (or deem worthy of consideration) this adversary’s metrics.

Moreover, not only do the metrics pinpoint where Western and non-Western influence efforts need to be directed—for example, at jihadi notions of brotherhood, unity, altruism, selflessness, a love of martyrdom, and so forth—but they also indicate that the nexus of global jihadi beliefs, their social reinforcement, and their influence on jihadi strategic thought ought to constitute the primary target matrix. In other words, this all-encompassing effort must extend far beyond pedestrian notions of countering “jihadi ideology.” Applying this logic reformulates our current understanding of victory metrics against the global jihadi movement in the so-called long war. Therefore, in addition to the instrumental objectives noted earlier, securing holistic victory against this adversary will also entail:

- dissuading individuals of the individual obligation to fight, or alternatively, refining and restricting the “zones of jihad”
- deinstitutionalizing the appeal of martyrdom operations
- revealing alternative identity-upholding adversaries—especially Muslims who kill other Muslims

- attacking the historical and normative bases for generating reciprocal suffering
- fighting mystical narratives by harnessing the power of belief itself
- discrediting the “heroes” of global jihad.

Naturally, many caveats must be inserted here, although a robust discussion of the means is best left for a different work.

First and foremost, liberal democracies are ill equipped to combat beliefs. The combination of domestic political pressures, bureaucratic inertia, and foreign policy imperatives—let alone the guarantee of freedom of worship—frustrates most Western efforts in this respect. At worst, these characteristic features of Western democracies create unavoidable friction that reinforces the prescience of belief-based adversarial narratives when the former rallies against the latter. Combating militant Islam is an archetypal case study in this regard. Furthermore, because global jihadism is largely an outgrowth of a multifaceted battle raging within Sunni Islam, the West should accept *prima facie* that *ultimate* solutions must come from within Islam itself. Moreover, the West must be prepared to accept that the above objectives may never be met in their entirety. The challenges associated with dislocating jihadi culture from its religious moorings (that is, Sunni Islam), however appealing, are beyond the capabilities (and arguably the purview) of the state, and possibly Islam itself. Managing public

terrorism is seen as the most expedient method for achieving reciprocal suffering (and thus, victory)

expectations, balancing operations, choosing clandestine options whenever possible to avoid direct narrative confrontation, working quietly with a great variety of nonstate actors, and perfecting *ultimate management* of the problem as opposed to seeking ultimate solutions may be the West’s best options.

Second, it is difficult to quantify the importance of the global jihad’s expressive definitions of victory. However, we know from studies such as West Point’s *Militant Ideology Atlas* that many of the militant authors cited herein are among the most popular within the global jihad’s online milieu. We also have

empirical evidence in the form of martyrs' wills, the existence of which demonstrates the resonance of these ideas within jihadi circles. Viewed differently, we see from the recent defensive posturing of global jihadi ideologues that the rhetorical attacks and networking efforts of anti-al Qaeda jihadis and Islamists on the cultural fabric of the global jihadi movement are beginning to erode its cohesion.²⁷ Indeed, the very effectiveness of these sources and means illustrates the importance of the movement's expressive universe, even if assigning a quantitative variable is difficult.

Third, this analysis raises several points with which the West must contend. For instance, how can we create strategic equilibrium between our continued presence in Afghanistan and Iraq and simultaneously engage some of the most potent weapons available in the fight against al Qaeda—that is, those Islamists and former jihadis who once stood alongside al Qaeda's leaders? These strategic linchpins in the battle against the global jihadi movement occupy thankless but critical roles. They are caught, on one hand, between a movement they decidedly rejected and, on the other, a perceived crusade against lands historically associated with their faith. Many virulently support jihadi activism in places such as Iraq, Afghanistan, or the Occupied Territories, yet they stridently oppose terrorism in the West. Yet another pressure point for those who live in the West—invariably a sticking point for their efforts against al Qaeda—is their perception of “oppressive” domestic antiterrorism operations and policies. Divining pragmatic pathways between coddling threatening ideologies, prosecuting conflicts in “Muslim” lands, and combating the culture of global jihad is the proverbial tough row to hoe. We must consistently reach out to these individuals without tainting or alienating them, just as we have to nefarious foreign intelligence agencies when our mutual interests coincide.

Finally, are Western efforts to be thanked for the current instability we see in al Qaeda, or are Muslim communities and activists doing it on their own? How do we measure these conclusions, and what do they tell us about the effectiveness of our many initiatives? And at the grand strategic level, can Western militaries and intelligence communities incubate and maintain within their traditions of secular humanism and scientific analysis a perspective that gives credibility to the rationality of belief and its influence on strategic agendas? As Quintan Wiktorowicz and Karl Kaltenthaler

note in one of the most lucid assessments of this issue, we are struggling mightily with reconciling these traditionally countervailing forces in our assessments of the global jihad.²⁸ If we fail in this respect, we risk seeing al Qaeda and other emerging adversaries through our eyes, not theirs. **JFQ**

NOTES

¹“Bin Laden Lieutenant Admits to September 11 and Explains Al-Qaida's Combat Doctrine,” The Middle East Media Research Institute (MEMRI), Special Dispatch No. 344, February 10, 2002, available at <www.memri.org/bin/articles.cgi?Area=sd&ID=SP34402>.

²Christopher Coker, *Waging War without Warriors* (London: Lynne Rienner, 2002).

³Robert D. Kaplan, *Warrior Politics* (New York: Vintage Books, 2002), 118.

⁴Coker, 6.

⁵Bruce Hoffman and Gordon McCormick, “Terrorism, Signaling, and Suicide Attack,” *Studies in Conflict and Terrorism* 27, no. 4 (July 2004), 243–281.

⁶Faisal Devji, *Landscapes of the Jihad* (London: C. Hurst & Co. Ltd, 2005).

⁷These authors—an admixture of militants, theorists, and online strategists—include (among others) the late Yusuf al-'Uyayree; Sayyid Imam al-Sharif (also known as “Dr. Fadl”); Abu Muhammad al-Maqdisi; Abu Yahya al-Libi; Ayman al-Zawahiri; Abu Basr at-Tartusi; Abu Ayman al-Hilali; Abu Qatada al-Filistini; Muhammad al-Hakaymah; Sayf-ad-Din al-Ansari; and Nasr al-Fahd.

⁸“Creed” (2004) in author's possession (URL unavailable).

⁹“Understanding Ramadan: The Muslim Month of Fasting,” *The Washington Post* Online, November 19, 2001, available at <www.washingtonpost.com/wp-srv/liveonline/01/nation/ramadan_awlaki1119.htm>.

¹⁰Anwar al-Awlaki, “Constants on the Path of Jihad” (audio lecture series based on the works of Yusuf al-'Uyayree), accessed at <http://islambase.co.uk/index.php?option=com_content&task=view&id=308&Itemid=120>. Available as a transcript at <www.scribd.com/doc/2407141/Constants-on-the-Path-of-Jihad>.

¹¹Shaykh Yusuf al-'Uyayree, “Meanings of Victory and Loss in Jihaad,” available at <www.maktabah.net/store/images/35/Meanings%20of%20Victory%20and%20Loss%20in%20Jihaad.pdf>.

¹²See Abdullah Azzam, *The Defence of Muslim Lands*, available at <www.religioscope.com/info/doc/jihad/azzam_defence_8_end.htm#>.

¹³The accounts of the July 7, 2005, United Kingdom bombing cell and the 2006 United Kingdom “airliner plot” cell are instructive, among many others.

¹⁴Abu Ayman al-Hilali, “The Real Story of the Raids on New York and Washington,” available at

<www.why-war.com/files/qaeda_celebrate_911.txt>.

¹⁵See Joseph Felter and Brian Fishman, “Al-Qa'ida's Foreign Fighters in Iraq: A First Look at the Sinjar Records,” Combating Terrorism Center at West Point, December 2007, available at <www.ctc.usma.edu/harmony/pdf/CTCForeignFighter.19.Dec07.pdf>.

¹⁶*Ibid.*, 18.

¹⁷Sayf-ad-Din al-Ansari, “The raid on New York and Washington: A generic description,” available at <www.why-war.com/files/qaeda_celebrate_911.txt>.

¹⁸Abu Ubayd al-Qirshi, “The 11 September Raid: The Impossible Becomes Possible,” available at <www.why-war.com/files/qaeda_celebrate_911.txt>.

¹⁹See, for example, Suleiman Abu Geith, “In the Shadow of Lances,” quoted in MEMRI, “Why We Fight America,” Special Dispatch No. 388 (June 12, 2002).

²⁰See Reuven Paz, “Yes to WMD: The first Islamist Fatwah on the use of Weapons of Mass Destruction,” Prism Special Dispatches 1, no. 1 (May 2003), available at <www.e-prism.org/images/PRISM%20Special%20dispatch%20no%201.doc>.

²¹Al-'Uyayree.

²²This point was raised on the al Qaeda in Iraq-linked *Sout al-Khilafa* (“Voice of the Caliphate”) television broadcast following the U.S. hurricanes in autumn 2005. See “Move over CBS: Al-Qaeda Moves into the News Business,” September 27, 2005, accessed at <http://mynetjawa.mu.nu/archives/122982.php>.

²³For example, “Special Reports—Through the eyes of the mujahideen,” *Jane's Islamic Affairs Analyst* (December 1, 2004).

²⁴See, for example, As-Sahab, “Al-Zawahiri Message Pays Tribute to Abu al-Layth al-Libi,” Open Source Center video transcript, February 28, 2008.

²⁵See, for example, the video “Al-Sahab Media Organization presents ‘Light and Fire in Eulogizing the Martyr’ by Shaykh Abu-Yahya al-Libi,” July 30, 2006.

²⁶Al-'Uyayree.

²⁷Ayman al-Zawahiri's 2008 tome, *Exoneration*—a response to the recantation of Sayyid al-Imam, one of the architects of al Qaeda's ideology—and his two laborious question-and-answer sessions from April 2008 reflect his awareness of a growing need to protect the culture of global jihad from potentially lethal setbacks. For more on these setbacks, see Peter Bergen and Paul Cruickshank, “The Unraveling: the jihadist revolt against bin Laden,” *The New Republic*, June 11, 2008, available at <www.tnr.com/politics/story.html?id=702bf6d5-a37a-4e3e-a491-fd72bf6a9da1>.

²⁸See Quintan Wiktorowicz and Karl Kaltenthaler, “The Rationality of Radical Islam,” *Political Science Quarterly* 121, no. 2 (Summer 2006), 295–319.

Death of the Combatant Command?

Toward a Joint Interagency Approach

By JEFFREY BUCHANAN, MAXIE Y. DAVIS, and LEE T. WIGHT

In the Afghanistan and Iraq campaigns, one of the most important lessons . . . relearned is that military success is not sufficient. . . . These so-called soft capabilities along with military power are indispensable to any lasting success, indeed, to victory itself as Clausewitz understood it, which is achieving a political objective.

—Robert M. Gates,
Secretary of Defense¹

Hindsight is often 20/20. We can study our efforts in Vietnam, the former Yugoslavia, Somalia, and even the current situations in Afghanistan and Iraq and come to some fundamental conclusions. One is that our interagency process is broken.² Why is that? If it is broken, can we fix it? In this article, we explore the problems with our current interagency process,³ suggest a solution, compare that with other possible solution sets, and discuss consequences of its implementation.

The problems with the American interagency process are complex. We do not pretend to be experts on the current process or historians recounting each incremental step along our path to the present. We do believe, however, that most of today's prob-

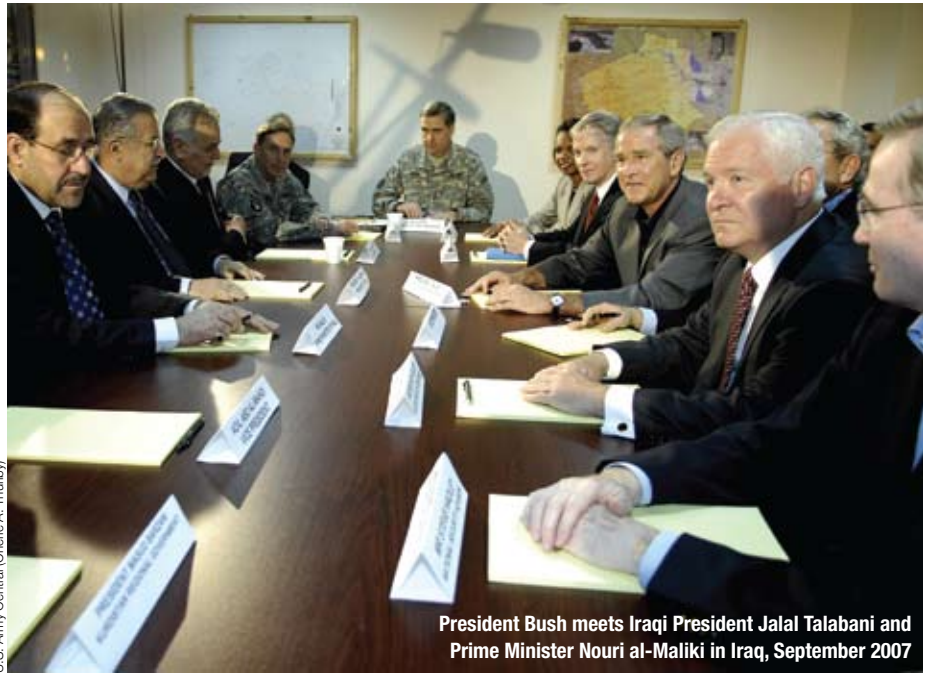
lems arise from a gap created by a lack of either capacity or integration, or both, below the national level. This article proposes filling that vacuum with standing, civilian-led interagency organizations, having regional responsibility for all aspects of U.S. foreign policy.⁴

Thomas Ricks posits that the decision to give the Department of Defense (DOD) the lead for postwar Iraq was problematic and may have doomed the American effort from the start, since the department lacked the capabilities to oversee a large multiagency civilian mission.⁵ If so, then why did DOD get the lead for postwar Iraq? A possible answer is that although DOD may not have had all that it needed at the outset of the war, there was no other government institution that had the budget or manpower to manage the effort.⁶

While history will judge how well DOD lived up to those postwar Iraq challenges, it seems evident now that an agency responsible for one of the instruments of power should not be responsible for integrating the efforts of all the others. At the national level, that integration is supposed to occur from within the National Security Council (NSC). The NSC advises the President, decisions are made, and the instruments of power are integrated toward our national interests. In response, the various agencies march forward to do their respective parts. Below the national level, integration is problematic. At the regional or operational level, a coherent blend of the instruments of power is dependent on cooperation.⁷

It seems logical that if true integration only occurs at the national level, execution at the regional or local levels could be fraught with problems, as the agencies representing the instruments of power are organized differently and there is no directive authority for implementation at the regional level. DOD is organized with six geographic combatant commands responsible for the various regions, but the Department of State regional organization is different. State also has six regional bureaus, but the boundaries do not match those of DOD. As an example, the U.S. Central Command (USCENTCOM) commander must coordinate efforts with three regional State bureaus: African Affairs, Near Eastern Affairs, and South and Central Asian Affairs. The State bureau system is also relatively new, as the traditional approach to coordination has been at the Ambassador/Country Team level. The result is that the combatant commander must coordinate efforts with three Assistant Secretaries of State (leaders of State regional bureaus) and 27 Country Teams. Conversely, the Assistant Secretary for Near Eastern Affairs must coordinate with three combatant commanders: those of USCENTCOM, U.S. European Command (USEUCOM), and U.S. Africa Command (USAFRICOM).

Integration of the informational and economic instruments of power is also problematic at the regional level. The U.S. Information Agency morphed into the Department of Public Diplomacy and Public Affairs as part of the State Department. Similar to the



U.S. Army Central (Cherie A. Thurbill)

President Bush meets Iraqi President Jalal Talabani and Prime Minister Nouri al-Maliki in Iraq, September 2007

move to appoint the Administrator of the U.S. Agency for International Development (USAID) concurrently as the Director of Foreign Assistance (a Deputy Secretary of State), the change was an attempt to better integrate efforts at the national level, but no comparable regional level structure exists. A further complication is apparent when we consider that much of our national structure evolved only to consider domestic U.S. problems. Many organizations outside DOD and State consequently did not develop an expeditionary capacity and are not structured to meet foreign demands.

Band-aids on a Sucking Chest Wound

Spurred by recent experience, gaining unity of effort within the interagency realm has galvanized so much debate that possible solutions are blooming from almost every think tank and military academic institution. While space prevents addressing each individually, these proffered solutions fall into three basic groups, running the gamut from legislative actions that restructure or add more agencies outside of DOD, to modifications to existing combatant command staffs, to a proposal that recommends completely replacing three of the regional command staffs with hybrid organizations.

A prevalent academic argument is that the flaws in the interagency process can be legislatively remedied by creating additional organizations to coordinate the efforts of existing agencies, citing as a prime example the Goldwater-Nichols Department of Defense Reorganization Act of 1986 as the fix for poor coordination and communication among the military Services. Nora Bensahel and Anne Moisan embrace this legislative premise and propose an accompanying organizational construct.⁸ Their approach includes shoring up the NSC leadership role by establishing a Prevention, Reconstruction, and Stabilization Cell (PRSC) within the NSC. The PRSC would absorb the State Department Office of the Coordinator for Reconstruction and Stabilization (S/CRS) to create a “flat” organization with 10 to 15 permanent members that would have directive authority over supporting interagency (excluding DOD) departments in policy development, strategic planning, execution of crisis management, and conflict and postconflict operations.⁹ Unfortunately, this proposal appears to be no more than a “super” S/CRS and presents many of the same issues as the original S/CRS. These challenges include ambiguous and omitted lines of authority between military and civilian authorities, insufficient capacity to execute its responsibilities (specifically, no expeditionary capability), and possible lack of political support.

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Another legislative solution is the Center for Strategic and International Studies (CSIS) model, which creates offices in each of the key civilian agencies to participate in the interagency planning process. These offices would meet quarterly with DOD and other agencies under NSC-chaired summits to coordinate their planning efforts. Similarly, the Defense Science Board (DSB) would create cross-government contingency planning and integration task forces for countries “ripe and important” under the leadership and direction of the President and NSC.¹⁰ Not only do these models share the lack of deployable resources and ambiguous lines of authority inherent in the S/CRS and PRSC, but they also fail to provide continuous and collective oversight for the complex and global range of U.S. concerns. Moreover, they do not have directive authority to integrate with military planning efforts.

The Marine Forces Pacific Crisis Management Group (CMG) model takes a step beyond the limited planning role of the CSIS and DSB by creating a full-time standing organization to support crisis prevention and response and provide a cohesive transition from Defense to State while executing stability and recovery operations.¹¹ While certainly a step in the right direction, it adds another level of bureaucracy between the NSC and DOD/State (and correspondingly creates a competing demand for resources and personnel from other agencies) and still lacks directive authority over DOD or State actions.

Turning from the “legislatively added” organizations, there is a group of proposals, summarized by Neyla Arnas, Charles Barry, and Robert Oakley, that aims to restructure the current geographic combatant command staffs to include elements of the interagency milieu. These include the Full Spectrum Joint Interagency Coordination Group (JIACG) Concept, Super Political Advisor (POLAD), J-10, and Defense Advisor proposals.

Although the individual details differ, they all add a number of interagency advisors of varying capabilities to the combatant command staff. The most far-reaching of these staff reorganizations is that of the nascent USAFRICOM staff, which proposes a fully integrated military and non-DOD civilian interagency staff. These civilian representatives would not merely advise, but would be full-fledged members of the staff. Despite the appealingly fresh approach to staff composition, the Achilles’ heel of all of

these constructs remains that the interagency representatives, whether advisors or staff, lack directive authority over their parent organizations. While any of these models would undoubtedly improve planning by broadening staff expertise, under the crucible of combat or bureaucratic pressures, they cannot compel interagency compliance with the resulting plan—no matter how comprehensive. Another drawback is that all of these proposals weight the combatant command inordinately heavily in the regional planning process. This unbalanced approach may militarize U.S. foreign policy, which, some fear, risks creating modern-day proconsuls.¹²

Significantly, the final alternative, conceived by James Carafano, proposes replacing the existing Unified Command Plan (UCP) with the U.S. Engagement Plan (U.S.-Plan). It would reduce the number of combatant commands to three and reorganize their boundaries and responsibilities. The U.S.-Plan would establish three Joint Interagency Groups (InterGroups) responsible for Latin America, Africa–Middle East, and Central and South Asia. Each InterGroup would have a military staff as the nucleus of a standing joint task force (JTF) in the event of military operations. Also, the InterGroup proposes a *flexible* command structure that defines operational leadership—be it civilian or military—by the nature of the task performed.¹³

the most far-reaching of these staff reorganizations proposes a fully integrated military and non-DOD civilian interagency staff

This concept has substantial merit. In fact, our most significant critique is that it does not go far enough. Having only approximately a third of U.S. global interests served by this multidisciplinary organization begs the question of how crises would be managed elsewhere and why risk should be assumed in those regions lacking InterGroups. In addition, one can argue that the regions Carafano offers for combatant commanders and his proposed InterGroups are too vast, and the regional issues too varied and complex, for this small grouping to manage. This argument appears to have been validated by creating USAFRICOM to manage issues that exceeded the capacities of existing USCEN-

COM and USEUCOM staffs. Carafano also does not specify how the InterGroups would relate to the NSC, State, Ambassadors, DOD, or other combatant commands (are they peers or superiors?). Moreover, he does not specify who would lead such a nontraditional organization. While “fluidity of leadership” may be an asset in operations that transition smoothly between phases in a linear fashion, many contemporary stabilization operations can suddenly shift between combat and nationbuilding, while some scenarios may require simultaneous actions on multiple priorities. Any confusion that delays appropriate response in such a situation could prove fatal. Despite its drawbacks, the InterGroup concept has significant merit.

Breaking the Rice Bowls

As the review above should illustrate, the world has changed since 1947, and indeed, even since Goldwater-Nichols reorganized the U.S. military Services’ relationships. The Cold War is long over, nonstate actors dominate international conflict, DOD has transformed and become the dominant arm of foreign policy, and the Department of State has withered and atrophied.¹⁴ Today’s combat environments—often with a significant nationbuilding component—are replete with entities and organizations besides the military. Unfortunately, our governmental structure has not concomitantly changed.

The absence of change does not appear to be due to a paucity of ideas, yet all proposals so far appear to share the common flaw of lacking true directive authority to integrate interagency operations.¹⁵ This is a task that the military has no authority to perform, yet current practice has effectively made DOD responsible for its success. This flies in the face of State Department responsibilities and risks militarizing America’s foreign policy.¹⁶

As noted at the outset, this article proposes standing, civilian-led interagency organizations, with regional responsibility for all aspects of U.S. foreign policy, reporting directly to the President through the NSC.¹⁷ These entities’ formal structure would include representatives from all major Federal Government agencies, including DOD, while dissolving the existing geographic combatant commands.¹⁸ These organizations would be led by highly credentialed civilians, potentially with a four-star military deputy. Their charter would include true directive authority to all agencies below the NSC, as it would relate to activities

occurring in the assigned region—to include U.S. Ambassadors and Country Teams.¹⁹

The NSC would be responsible for integrating policy among these regional entities and proposing solutions to the President for intractable resource or mission conflicts. In addition to representatives and staffs of other agencies, these organizations would have assigned joint military forces, tailored to the regional missions and augmented as necessary in times of crisis. This construct would change only the authority to integrate the instruments of national power at the operational level. It would not change Title 10 military administrative command responsibility, which would continue to run from the President through the Secretary of Defense to the senior ranking military officer in the new organization. Given the joint nature of forces assigned, as well as the inherent interagency structure with both interagency directive and military command authority, we propose naming these organizations Joint Interagency Commands (JIACOMs).

The result would be an operational-level organization responsible for planning, integrating, and executing all U.S. regional foreign policy. It would contain or have direct access to and tasking authority over all U.S. agencies likely to be involved in planning and implementing these policies, up to and including the use of military force. This structure would exist permanently, whether or not contingency operations were under way. Finally, where the JIACOM interfaces at the strategic level through the NSC, it would interface with operational-tactical level activities by standing up joint interagency task forces (JIATFs) that would have the lead for local crisis management, just as combatant commands may currently elect to stand up JTFs.²⁰

Answering the “So What?”

The first question one might ask is if the formation of JIACOMs would even be feasible. The answer is a resounding *maybe*—and it would be hard to bring about. In the first place, the changes necessary to form JIACOMs would require significant cooperation and action from both the executive and legislative branches of government. The need for reform in our interagency process is critical and Congress must play a central role:

It is unrealistic to expect the executive branch to reform itself. Administrations are too busy with day to day operations to

*see the need for change and presidential directives are insufficient and ineffective for this level of reform . . . [which] must be driven by Congress, in a manner similar to that achieved by the Goldwater-Nichols Act in 1986. . . . While Congress is part of the solution it is also part of the problem and requires similar reform of its own.*²¹

JIACOMs are feasible only through a new National Security Act and revision to Title 10, the UCP, and various Presidential decision directives, among other documents. Funding

of responsibility is that we are forced to work across boundaries at the *regional* level. If we ensured that all elements of power were regionally integrated through the formation of JIACOMs, the burden for strategic level integration at the NSC may increase.

A second concern is a potential loss of the balance of power at the regional level. The Founding Fathers established three branches of government to ensure checks and balances. One could argue that the healthy tension between DOD and State at the regional level maintains that balance. Directive authority at

standing, civilian-led interagency organizations would include representatives from all major Federal agencies, including DOD, while dissolving the geographic combatant commands

would certainly require significant attention. At the minimum, the “non-DOD” portion of the JIACOMs must be adequately resourced to meet regional integration challenges.

As with any sea change, the formation of JIACOMs would likely carry both costs and benefits. Aside from the necessary changes in structure, authorities, and funding, the development of JIACOMs could create three new concerns. The first is a potential loss of integration among the regions. One advantage we currently enjoy with inconsistent combatant command and State bureau areas

the regional level equates to unity of command rather than merely unity of effort, so we run the risk of poor direction through a lack of internal criticism. However, this potential cost could be mitigated through sound leadership.

Such is also the case for the final concern: dealing with organizational culture. The various members of the JIACOMs would each be creatures of their parent organizations’ culture. The potential for organizational conflict would be high. The JIACOM leadership must find a way to embrace each organization’s culture and draw out the benefits

California Governor Arnold Schwarzenegger (left) leads interagency team during response to wildfires, July 2008



DOD (Steven J. Weber)

from membership rather than allowing seeds of conflict to foment internal strife.

The formation of JIACOMs would clearly generate significant benefits, as well as costs. The major potential benefit is a significant increase in unity of effort across all the instruments of national power, through all phases of operations.²² In addition to better geographical integration, we would also enjoy better chronological integration. A second potential benefit is the increased professional development of JIACOM members. In addition to providing an enhanced career path for our most experienced military and civilian leaders, we would likely see better development of regional expertise in the JIACOM staff. Both DOD and State currently have significant developmental programs, but JIACOMs would force more robust experience overall.

A third potential benefit is that JIACOMs may facilitate both coalition and alliance-based operations from a political standpoint. It may be more palatable for some nations to accept working with a civilian-led organization rather than a purely military one. Similarly, we may see a significant increase in participation of the other non-military ministries of a contributing nation. One could also postulate that the civilian-led JIACOM would appear less threatening to many NGOs and intergovernmental organizations; therefore, we might expect better international and private integration. Likewise, few could construe a civilian JIACOM leader as a provocative proconsul.

Recent experience may be the slap that refocuses our perception of previous postconflict experiences. Regardless of perspective, today's reality should not be ignored. Our interagency process is dangerously dysfunctional. Bipartisan pundits are charging headlong with possible solutions, but all appear fatally flawed from inception.

Existing proposals either increase bureaucratic complexity or fail to proscribe true directive authority that would force the integration of myriad agencies wielding national power. Other suggestions merely add weight to an already bloated combatant command staff and risk DOD drowning the foreign policy voice of State. Although a definite break from traditional thought, the JIACOM concept may address these concerns. It does require sweeping governmental change and a willingness to shatter paradigms, but with a new Presidential administration—and

while the lessons of Iraq and Afghanistan are still fresh—it may be time for the death of the geographic combatant command as we know it. Instead of dissipating our peerless, precious national energies through lack of focus, we have the opportunity to harness all elements of national power through a Joint Interagency Command and truly labor as one. **JFQ**

NOTES

¹ Robert M. Gates, remarks delivered to the Center for Strategic and International Studies, Washington, DC, January 26, 2008.

² Nora Bensahel and Anne M. Moisan, "Repairing the Interagency Process," *Joint Force Quarterly* 44 (1st Quarter 2007), 106–108, available at <www.ndu.edu/inss/Press/jfq_pages/editions/i44/30.pdf>.

³ For purposes of this article, the term *interagency* includes those from the Departments of State, Treasury, Justice, Transportation, and all others as detailed in Joint Publication (JP) 3–08, *Interagency, Intergovernmental Organization, and Nongovernmental Coordination During Joint Operations*, vol. 1 (Washington, DC: Joint Chiefs of Staff, March 2006), but will exclude those from the Department of Defense (DOD), although the authors recognize that DOD is itself an agency and would by other definitions be included in that term. Examples of intergovernmental organizations (IGOs) include the United Nations, World Health Organization, Red Cross, and Red Crescent (among others), while nongovernmental organizations (NGOs) include Doctors Without Borders, CARE, and so forth.

⁴ JP 1, *Doctrine for the Armed Forces of the United States* (Washington, DC: Joint Chiefs of Staff, May 14, 2007), I–15. In addition to the plethora of interagency actions, this proposal includes the entire range of military operations, such as force protection—which requires significant cooperation from agencies external to DOD.

⁵ Thomas E. Ricks, *Fiasco: The American Military Adventure in Iraq* (New York: Penguin, 2006), 78–79. Ricks is citing an unpublished RAND Corporation study faxed to the Secretary of Defense on February 8, 2005.

⁶ Gates.

⁷ As noted in JP 3–08, military operations must be strategically integrated and operationally and tactically coordinated with the activities of other agencies of the U.S. Government, IGOs, NGOs, regional organizations, the operations of foreign forces, and activities of various host nation agencies. Sometimes the joint force commander (JFC) draws on the capabilities of other organizations; sometimes the JFC provides capabilities to other organizations; and sometimes the JFC merely deconflicts his activities with those of others.

⁸ Bensahel and Moisan.

⁹ Neyla Arnas, Charles Barry, and Robert B. Oakley, *Harnessing the Interagency for Complex Operations*, Defense and Technology Paper 16 (Washington, DC: Center for Technology and National Security Policy, August 2005), 7, available at <www.ndu.edu/ctnsp/Def_Tech/DTP%2016%20Harnessing%20the%20Interagency.pdf>.

¹⁰ Ibid.

¹¹ Ibid., 16. Note that the name reflects only the Service sponsoring this research. The Marine Corps would not "manage" this group.

¹² See the extensive critique of the current out-of-balance relationship in terms of resources, personnel, and authority between DOD and State in Howard D. Belote, "Proconsuls, Pretenders, or Professionals? The Political Role of Regional Combatant Commanders," *Essays 2004: Chairman of the Joint Chiefs of Staff Strategy Essay Competition* (Washington, DC: National Defense University Press, 2004).

¹³ James Jay Carafano, "Herding Cats: Understanding Why Government Agencies Don't Cooperate and How to Fix the Problem," *Heritage Lectures* (Washington, DC: The Heritage Foundation, July 2006), 4.

¹⁴ Richard H. Kohn, "The Erosion of Civilian Control of the Military in the United States Today," *Naval War College Review* (Summer 2002), 9; and Kenneth R. Dahl, "New Security for New Threats: The Case for Reforming the Interagency Process," unpublished manuscript, The Brookings Institution, Washington, DC, July 2007, 15, available at <www.brookings.edu/papers/2007/07defense_dahl.aspx?rssid=executive%20branch>.

¹⁵ Carafano, 3.

¹⁶ Belote, 1.

¹⁷ JP 1, I–15. This proposal would include the entire range of military operations.

¹⁸ Note that the functional combatant commands (U.S. Joint Forces Command, U.S. Special Operations Command, U.S. Strategic Command, and U.S. Transportation Command) remain in this construct, but their assigned forces would be employed by and integrated through our proposed new structure. At some point, however, the responsibilities and indeed the very existence of the functional combatant commands may similarly be revised. All existing regional boundaries would need to be reassessed and standardized among U.S. Government agencies.

¹⁹ Authority would be given by either law or Presidential decree. Obviously, this would require changes to existing U.S. Code, Title 10, the Unified Command Plan, and a host of joint and Service doctrinal documents.

²⁰ Note that these joint interagency task forces would report to their "parent" Joint Interagency Command, similar to a joint task force reporting to a combatant command in the current structure.

²¹ Dahl, 4.

²² JP 1, I–8–22.

IRREGULAR **WARFARE** *IS* **WARFARE**

By KENNETH C. COONS, JR.,
and GLENN M. HARNED

Violent extremism is the most likely and dangerous threat the Nation will face between now and 2020. U.S. superiority in conventional warfighting has driven our adversaries to avoid direct military confrontation. The 2006 Quadrennial Defense Review (QDR) began with the recognition that irregular warfare (IW) has become the “warfare of choice” for our adversaries, who employ a strategy of physical, economic, and psychological subversion, attrition, and exhaustion to undermine and erode the power, influence, and will of the United States and its strategic partners. They fight us among the people in protracted struggles for popular support and legitimacy, limiting the utility of conventional applications of our military power.

Soldiers survey remains of building
after firefight

U.S. Army (Russell Lee Nika)

Our adversaries are unconventional, and so our approach for defeating them must be unconventional as well. We cannot defeat them solely by force; we must use a blend of political, informational, military, economic, and sociocultural approaches, in combination with foreign governments, security forces, and populations.

Potential Struggles

Violent extremism is not the only threat our nation will face in the near future. The danger of interstate war has not passed. The United States must maintain its dominance in interstate warfighting capabilities in order to deter and, if necessary, win such wars. However, the character of interstate warfare is changing. IW and conventional warfare are combining into new forms of hybrid warfare,¹ as potential state adversaries are more likely

Should the United States confront such states, its military will most likely need robust IW capabilities to wage hybrid warfare among a hostile population.

By the end of the QDR, the Department of Defense (DOD) senior leadership had come to the following assessment with regard to IW:²

- U.S. forces were primarily organized, trained, educated, and equipped for conventional warfighting, and these capabilities remained essential to deter and fight conventional wars.

- U.S. forces were not as well organized, trained, educated, or equipped for protracted IW on a global scale.

- DOD was underinvested in general purpose force (GPF) and special operations force (SOF) capabilities and capacity for protracted IW.

over the definition of IW. Some within DOD advocated an IW definition based on *who conducts it* (the actors) while others advocated a definition based on *how it is conducted* (the methods). In the end, DOD senior leadership agreed that the IW definition should be based on *why it is conducted* (strategic purpose). In January 2006, the Deputy Secretary of Defense approved a working definition so that IW concept and capability development could proceed, and this working definition with slight modification became the approved definition on April 17, 2006:

IW is a violent struggle among state and non-state actors for legitimacy and influence over the relevant populations. IW favors indirect and asymmetric approaches, though it may employ the full range of military and other capabilities, in order to erode an adversary's power, influence, and will.³

some within DOD advocated an irregular warfare definition based on who conducts it while others advocated a definition based on how it is conducted



Soldier searches for Taliban weapons cache in Baghran Valley

55th Signal Company Combat Camera (Preston E. Cheeks)

Execution Roadmap

In December 2005, DOD began crafting a QDR IW Execution Roadmap. Its purpose was to facilitate implementation of the IW-related policy decisions of the QDR. The IW Roadmap was a temporary vehicle intended to enable a successful transition from the QDR to execution planning and programming with a near-term focus on the fiscal year 2008–2013 defense program. On April 26, 2006, the Deputy Secretary of Defense directed execution of the IW Roadmap with 28 tasks organized into 5 major initiatives for developing IW capabilities and capacity within DOD. The initiatives were:

- Transform the way DOD manages its military and civilian personnel to meet IW operational requirements (first priority), which entails changing the way the military Services identify, access, educate, train, develop, utilize, and retain personnel with IW-associated expertise and increasing opportunities for DOD personnel to obtain, maintain, and improve language proficiency and understanding of foreign cultures.

to possess chemical, biological, radiological, and nuclear (CBRN) weapons and delivery means; sophisticated antiaccess capabilities; significant irregular capabilities for horizontal escalation; and populations mobilized to resist U.S. military intervention. Future interstate warfare is more likely to be some form of hybrid warfare than the conventional warfare for which the Armed Forces are preparing.

Senior leadership emerged from the QDR not knowing exactly what IW was, but knowing that DOD needed dramatically greater IW capabilities to wage and win current and future struggles.

Defining IW

The DOD-wide IW effort during the QDR generated a year-long disagreement

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- Rebalance GPF capabilities and capacity to conduct long-duration counterinsurgency (COIN) and counterterrorism (CT) operations; train, equip, and advise large numbers of foreign security forces; and foster the development of civil society and effective governance in ungoverned and undergoverned areas.

- Increase SOF capability and capacity in two classified mission areas and to meet SOF air mobility requirements.

- Increase DOD capability and capacity to conduct counter-network operations, which entails identifying, locating, characterizing, perturbing, and disrupting extremist cells, networks, and individuals, and predicting their operational behavior.

- Redesign joint and Service military and civilian education and individual and unit training for the conduct and support of IW.

The IW Roadmap also provided an illustrative list of irregular warfare activities. This list was important because it bound the scope of IW. The roadmap noted that U.S. Government agencies do not conduct terrorism and transnational criminal activities as a matter of national policy or law. This list has stood the test of time and, with the addition of strategic communication, remains intact:⁴

- insurgency and COIN
- terrorism and CT
- unconventional warfare
- foreign internal defense
- stability operations when conducted within the context of an IW strategy or campaign aimed at gaining or maintaining the support of a host population
- transnational criminal activities that support or sustain IW and the law enforcement activities to counter them
- civil-military operations
- psychological operations
- information operations
- intelligence and counterintelligence operations.

Joint Operating Concept

Among other tasks, the IW Roadmap directed U.S. Special Operations Command (USSOCOM) to develop a joint concept for IW. In November 2005, USSOCOM and the Marine Corps Combat Development Command (MCCDC) agreed to develop a Multi-Service Concept for Irregular Warfare to lay the intellectual foundation for a future

IW joint concept. The Multi-Service Concept was approved in August 2006, shortly after the same writing team began work on the IW Joint Operating Concept (JOC).

The IW JOC identifies the following joint force problem: “How can Joint Force Commanders employ conventional and nonconventional military capabilities in support of integrated [U.S. Government] and multinational partner efforts to gain or maintain control or influence over a relevant population?”⁵ The central idea of the IW JOC is that the joint force will solve this problem by conducting “protracted regional and global campaigns using indirect approaches against state and non-state adversaries to subvert, coerce, attrite, and exhaust adversaries rather than defeating them through direct conventional military confrontation.”⁶ These campaigns will be population-oriented, not adversary-oriented, and will emphasize winning the support of the relevant populations, promoting friendly authority, and undermining and eroding adversary power, influence, legitimacy, and support. Below

campaigns will be population-oriented, not adversary-oriented, and will emphasize winning support

are the major propositions of current DOD thinking as captured in the IW Joint Operating Concept. They have been refined by more than a year of experimentation.

First, irregular warfare is “a major and pervasive form of warfare”⁷ that occurs in politically unstable environments of persistent conflict among populations. It is *not* an environment or a type of military operation. Second, what makes IW “irregular”⁸ is the focus of its operations—a relevant population—and its strategic purpose to gain or maintain legitimacy and influence over, and the support of, that relevant population through political, psychological, informational, military, and economic methods. Warfare that has the population as its “focus of operations” requires a different mindset and different capabilities than warfare that focuses on defeating an adversary militarily.⁹

Third, the foundation for IW is the centrality of the relevant populations to the nature of the struggle. All parties seek to undermine their adversaries’ legitimacy and credibility and to isolate their adversaries

physically and psychologically from the relevant populations. At the same time, they also seek to bolster their own legitimacy and credibility with those same populations.¹⁰ Popular support, per se, may not be relevant for certain terrorists and other extremists who simply coerce a population into compliance. However, defeating irregular challenges usually requires gaining legitimacy and influence over, and securing the support of, the relevant populations, not defeating an adversary primarily through direct military confrontation.

Fourth, IW is ultimately a political struggle with violent and nonviolent components. The use of the term *violent* in the definition was a particularly contentious issue. The term refers to the nature of the struggle, not the prescription of violence as the primary way to wage it. IW is “politics with guns.”



Marine cares for orphaned Iraqi child

The use or threat of political violence as a tool to undermine an adversary’s legitimacy and influence is one of its defining characteristics. It is the violent nature of the struggle that separates IW from the normal political process. Because IW is about finding political solutions (or managing intractable political problems), the military should always have a

supporting role, even when it is providing the preponderance of resources.

Fifth, IW extends beyond the military domain. Governments and populations wage IW, not only armed forces. Influencing foreign governments and populations is a complex and inherently political activity. IW campaigns will fail if waged by military means alone. The nature of IW requires the U.S. Government to achieve the level of unified action necessary to integrate all available instruments of national power to address irregular threats. The Government will have to develop whole-of-government approaches to wage IW at the political,

strategic, operational, and tactical levels. The relevant U.S. civilian agencies must build their capacity to operate in unstable or hostile environments.¹¹

Sixth, IW depends on not only our military prowess, but also our understanding of such social dynamics as tribal politics, social networks, religious influences, and cultural mores. People, not platforms or advanced technology, are the key to IW success—patient, persistent, and culturally savvy people who can build the long-term relationships essential to executing IW.¹²

Last, waging protracted IW depends on building global capability and capacity. IW

will not be won by the United States alone, but rather by, with, and through the combined efforts of our strategic partners. This requires the joint force to establish long-term sustained presence in numerous countries to build the necessary partner capability and capacity to extend U.S. operational reach, multiply forces available, and increase options for defeating our adversaries.¹³

The IW JOC also identifies four supporting ideas that contribute directly or indirectly to achieving the central idea of the concept:

- establish persistent global presence for IW
- establish and maintain interpersonal relationships to support IW
- expand the role of the GPF to support and execute IW missions
- create alternative command and control (C²) mechanisms for conducting and supporting IW when a joint task force (JTF) is not required to conduct major combat operations. Three such mechanisms include extending the joint interagency task force (JIATF) concept used today for counterdrug operations to regional subordinate unified commands and JIATFs with IW missions; establishing interagency advisory assistance teams at sub-national levels of government; and expanding the use of U.S. Military Groups (MILGRPs) to conduct and support irregular warfare as integral components of U.S. missions abroad.

Wargames

As the sponsor of the irregular warfare JOC, USSOCOM was responsible for experimenting with the concept during the first year of its life. As part of the experimentation process, USSOCOM cosponsored the Unified Quest 2007 and 2008 (UQ 07 and UQ 08) wargame series with the U.S. Army Training and Doctrine Command (TRADOC) and U.S. Joint Forces Command (USJFCOM). The IW JOC was tested against complex scenarios without discovering any substantive problems with its logic, description of future operating environments, or fundamental descriptions of operational requirements for the future joint force. No other JOC has been so tested. As the spiral game play evolved, so did participant discussion of the dynamics of IW, with certain areas deserving particular attention discussed below.¹⁴

Planning and Preparation. Players recognized the need for a different type of planning, assessment, and preparation period.



Soldiers engage Taliban fighters near Allah Say, Afghanistan

U.S. Army (Michael L. Casteel)

Players recognized that IW is a “messy” form of warfare that does not lend itself to clean formulas or predictable outcomes. UQ participants struggled to determine the appropriate approach to the irregular problem set they faced. Many civilian participants considered the military planning process stovepiped and rigid. They stated that the U.S. Agency for International Development in particular has a more dynamic planning process that is derived from the political and cultural nature of the interagency process and, unlike the military planning process, factors in more ambiguity and longer term objectives (years, not months).

Ambiguity of IW. The challenges of building IW campaigns demonstrated the discomfort and confusion of GPF players when forced to wrestle with the ambiguity inherent in IW. While players generally agreed that the ideas introduced in the IW JOC were valid and central to future warfighting, they struggled with the nature of this form of warfare, especially when they were unable to articulate the risk associated with various indirect approaches.

Population as Focus of Operations. UQ participants overwhelmingly validated the idea that IW should be population-oriented and that conventional approaches to warfare do not fully accommodate this notion.

MILGRPs Conducting and Supporting IW. The use of MILGRPs as an alternative C² mechanism for IW was a recurring theme during UQ 07 and UQ 08. Participants generally agreed that MILGRPs with enhanced legal and budget authorities have distinct advantages over JTFs when conducting or supporting IW activities in the absence of major combat operations.

Importance of Strategic Communication. These activities depend on early crafting of a compelling narrative that resonates with all relevant populations, legitimizing friendly IW messages and actions while discrediting the messages and actions of adversaries in the minds of the relevant populations. One of the most profound ideas to emerge during UQ 07 was the concept of narrative advanced by Michael Vlahos of The Johns Hopkins University. A narrative is a story that a party to an armed struggle uses to justify its messages and actions so they become legitimate and favorable to the relevant populations. Strategic success in IW requires a narrative that not only counters and discredits adversary narratives but also offers an alternative that is at

least as compelling to the relevant populations. The respective narratives become the emotional, intellectual, and spiritual foundations for each party’s policies, strategies, campaigns, and operations.

Difficulty with Whole of Government.

The whole-of-government approaches that the IW JOC seeks to implement depend on achieving unified action through agreed interagency processes and procedures that do not exist. Implementation is unlikely without a collaborative effort between the President and Congress. The requirements for U.S. Government civilian agencies to conduct IW do not reflect the reality of interagency barriers to implementing whole-of-government approaches. The senior civilian participants in the 2008 seminar wargame agreed that

than were the military participants. DOD preaches unified action but non-DOD senior participants argued instead for the more realistic goal of managing diverse institutional cultures, relationships, and politics.

In 2007, the Office of the Secretary of Defense sponsored a three-part IW wargame to inform DOD efforts to develop new operational and organizational constructs and identify capability and capacity shortfalls. The game tested the use of GPF and SOF to stabilize a large, failing country. The IW JOC held up well. Significantly, no team recommended a direct military intervention with GPF ground forces; all wanted to pursue a more indirect approach in support of host country security forces. All teams agreed that the problem was primarily political and

the U.S. Agency for International Development has a planning process derived from the political and cultural nature of the interagency process and, unlike the military planning process, factors in more ambiguity and longer term objectives

implementing the IW concept is about leveraging *relationships* within the interagency community. This process is ad hoc and will never be as efficient as the military planning process. Civilian participants generally were more comfortable with this as an approach to the ambiguities of irregular challenges

that the Department of State should have the lead. They also agreed that the problem was regional and asked that MILGRPs be established or reinforced in the threatened country and in all neighboring countries.

Most players did not think Congress would allow the executive branch to transform



Squad leader directs Marines during firefight with Taliban insurgents

U.S. Marine Corps (Keith A. Milke)

for IW and believed that U.S. civilian agencies would therefore be unable to build sufficient IW capacity to fill their shortfalls. Some players argued that even if the agencies could build adequate capacity, it might be more cost-effective to expand DOD civil affairs, psychological operations, and foreign area officer capabilities and detail these resources to the civilian agencies or assign them to MILGRPs to function under the direction of Foreign Service Officers, especially in unstable or hostile operational environments where civilian agencies cannot operate effectively.

Moreover, the teams could not agree on how to build up the host country national police and the associated judicial and penal institutions. They saw the problem as magnitudes more difficult than building up a foreign military. DOD does not have a constabulary-like paramilitary force with police powers; the Coast Guard and Border Patrol are the closest government organizations to a European-style constabulary. There is no clear-cut solution to this critical shortfall in capability to conduct COIN and CT missions.

Capability Assessment

When USSOCOM completed the final draft of the IW JOC in December 2006, it knew that appendix C (Table of Operational Effects and Broad Military Capabilities) needed further refinement. Continuing their collaboration, USSOCOM and MCCDC in

January 2007 invited the other DOD components to join in an effort to identify and prioritize the key capabilities the joint force needs to conduct global IW operations. Three teams applied the ideas in the IW JOC against selected steady-state security posture scenarios to write three concepts of operations (CONOPS) for waging IW in friendly states,

the Coast Guard and Border Patrol are the closest government organizations to a European-style constabulary

hostile states, and nonbelligerent states. From these CONOPS, the teams developed a framework of key IW capabilities in terms of tasks, conditions, and effects.

The teams found that many of the *tasks* that joint forces perform in IW are essentially the same as the tasks they perform in conventional warfare. However, the *conditions* under which they perform them in IW are fundamentally different from the conditions under which they perform other military operations. These different IW conditions require the joint force to reexamine how it performs these common tasks in IW. The teams also found that many of the desired *effects* for the tasks are different when conducted in IW because the effects

are more focused on the relevant populations than on adversaries.

The teams completed the revised appendix C in late July 2007, in time for its use during fiscal year 2010–2015 program development. USSOCOM and MCCDC are using it as the starting point for a co-led IW-focused Joint Capabilities-based Assessment (CBA) that began in August 2007. The Joint Staff approved its joint capabilities document in August 2008, and the functional solutions analysis is under way.

Current Assessment

DOD has made great progress over the last 3 years. There is growing consensus on the definition, character, and scope of IW. The Deputy Secretary of Defense has approved multiple plans for correcting IW shortfalls. The fiscal year 2008–2013 program devoted significantly more resources to IW. The Secretary of Defense approved and signed the IW JOC on September 11, 2007. The 2007 version of Joint Publication 1, *Doctrine for the Armed Forces of the United States*, incorporates IW concepts into joint doctrine for the first time, and new joint publications on counterinsurgency and counterterrorism are being written. The Joint Staff completed its assessment of GPF requirements for COIN and CT and presented their options for meeting those requirements to the Deputy Secretary of Defense in December 2007. The Services and other DOD components have a greater appreciation for their IW requirements. An IW-focused CBA is under way, and its products will help drive DOD requirements and programming efforts. USSOCOM and USJFCOM are collaborating on a series of IW workshops and experiments to further refine the IW concept. Other government departments and agencies have not embraced the term *irregular warfare* but support State Department initiatives to improve the ability of the U.S. Government to plan and conduct State-led “complex operations.” The State Department has issued an interim *Counterinsurgency Guide for U.S. Government Policy Makers*, is co-sponsoring with DOD an Interagency Consortium for Complex Operations, and has expressed interest in expanded strategy and planning coordination between DOD and State.

Nevertheless, much remains to be done. As a whole, DOD institutions remain too oriented on peacetime processes to sustain and enhance conventional warfighting

Marines maneuver during firefight, Operation Iraqi Freedom



1st Marine Division Combat Camera (Kevin F. Reed)

capabilities, at the expense of modifying those processes to meet current wartime demands, improve outcomes, and prepare for persistent conflict in the future. The correct metrics for measuring IW transformation are programs funded and capabilities and capacity fielded—not briefings given, plans written, and processes followed. Many in DOD disagree on the appropriate balance among conventional warfighting and IW capacities and the appropriate balance of effort required among U.S. Armed Forces and civilian departments and agencies. There is widespread institutional resistance to the concept of transforming DOD to wage persistent and protracted irregular warfare on a global scale. Some within DOD also see IW as a temporary inconvenience that will go away when U.S. major combat forces leave Iraq, a belief reinforced by the fact that DOD has not clearly articulated what the force employment requirements are for waging IW globally. Absent a defined endstate for IW transformation, the best DOD has been able to achieve are marginal improvements to existing capabilities.

There are still debates over whether IW and hybrid warfare will replace conventional warfare. In some respects, the current combat operations in Iraq and Afghanistan tint the lens of the debate, but the measures of effectiveness for IW transformation should *not* be improvements to current operations but rather how well DOD prepares for the broader ongoing effort against violent extremists and their state and nonstate sponsors.

DOD continues to struggle with how to deal with the inability of relevant civilian departments and agencies to expand their own capacities to perform nonmilitary tasks (governance, essential services, economic development, and so forth) that are vital to waging IW and conducting complex operations.

But we must get past these challenges and seize the momentum of the IW JOC. The Armed Forces have been assigned an important new IW mission and must now adapt their portfolios, requirements, programmatic funding, and conventional mindsets to IW.

A Way Ahead

Transformation efforts of this scale are difficult, but a path does exist. The major initiatives of the IW Roadmap are still valid, and DOD should continue to pursue them as it moves forward in the fielding of new IW capabilities and capacity.

USSOCOM needs to increase its SOF capabilities and capacity to perform unconventional warfare and other indirect IW activities on a global scale, and particularly outside the U.S. Central Command area, where by our absence we have ceded the strategic initiative to our adversaries. Our nation cannot “kill or capture” its way to victory in this struggle. At best, our manhunting efforts buy time for more decisive indirect IW activities to achieve their desired effects.

DOD needs to implement the options identified in the Joint Staff assessment of GPF IW capabilities and capacity. The general purpose forces need a new COIN and CT paradigm; the current paradigm of U.S.-based joint expeditionary forces organized into JTFs is inappropriate for steady-state IW requirements. DOD should embrace a return to the Cold War paradigm of large numbers of empowered MILGRPs operating under the direction of U.S. Chiefs of Mission and collaborating regionally to defeat transnational adversaries. The leading advocate of this paradigm shift is noted strategist Colonel Robert Killebrew, USA (Ret.), who has written a study¹⁵ for the Center for a New American Security and an article in *Army* magazine¹⁶ on the need to adopt such a paradigm shift.

The DOD intelligence components and unified commands need to accelerate their efforts to improve counter-network operations. As the IW Roadmap states, “Vital to this effort is increasing the ability of DOD to capture and integrate knowledge from anthropologists, sociologists, geographers, demographers, and other social scientists into intelligence and operational analysis at all levels down to the tactical.”

The military departments and Services, unified commands, and National Defense University need to institutionalize the changes they have made to joint and Service education and training for IW. The U.S. military has a century-long history of adopting temporary solutions in response to irregular challenges, only to scrap them when the challenges pass. This current struggle will not pass in the foreseeable future. Our education and training base needs permanent solutions to meet the demands from the field that will come once the general purpose forces adopt a new paradigm for waging IW.

Most important of all, the military departments need to create or improve career paths, incentives, and advancement opportunities for DOD personnel with critical

IW-related skills and knowledge. If we do not create new demands that force the Service personnel management systems to transform, we cannot hope to identify, access, educate, train, develop, utilize, and retain adequate numbers of the people we need to wage protracted IW on a global scale.

The 2006 *QDR Report* states that “to achieve global effects across countries, regions, and groups, the United States must localize and defeat terrorist extremist cells with approaches tailored to local conditions and differentiated worldwide.”¹⁷ Seven years into this struggle as it was redefined on 9/11, the Department of Defense must do everything it can to accelerate the fielding of new capabilities and capacity to wage irregular warfare and win this struggle. **JFQ**

NOTES

¹ *Hybrid warfare* is the simultaneous and intertwined application of conventional and irregular warfare methods to achieve strategic objectives.

² U.S. Department of Defense, *Irregular Warfare Execution Roadmap* (IW Roadmap) (Washington, DC: Department of Defense, April 28, 2006), 6.

³ Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States* (Washington, DC: The Joint Staff, May 14, 2007), I-1.

⁴ Irregular Warfare Joint Operating Concept (IW JOC), version 1 (Washington, DC: Department of Defense, September 11, 2007), 8.

⁵ IW JOC, 15.

⁶ *Ibid.*, 17.

⁷ JP 1, I-6.

⁸ Some IW advocates would prefer a different term, such as *unconventional*, *nonconventional*, or *traditional* warfare, but *irregular warfare* is the term of record at least for the remainder of this administration.

⁹ JP 1, I-7.

¹⁰ *Ibid.*

¹¹ IW JOC, 1.

¹² *Ibid.*, 1.

¹³ *Ibid.*

¹⁴ U.S. Southern Command, *Unified Quest 07* Analytical Report (June 4, 2007), 5–8 and 12–23.

¹⁵ Robert B. Killebrew, *The Left-hand Side of the Spectrum, Ambassadors and Advisors in Future U.S. Strategy*, The Future of the U.S. Military Series (Washington, DC: Center for a New American Security, June 2007).

¹⁶ Robert B. Killebrew, “The Army and the Changing American Strategy,” *Army* (August 2007), 25–34.

¹⁷ Department of Defense, *2006 Quadrennial Defense Review Report* (Washington, DC: Department of Defense, February 6, 2006), 22.

Wired for War?

Robots and Military Doctrine

By P. W. SINGER

Marines in Iraq employ remote-controlled robot to detect improvised explosive devices and weapons caches



U.S. Marine Corps (William Skelton)

The growth in our use of unmanned systems has taken place so rapidly that we often forget how far we have come in just a short time. While U.S. forces went into Iraq with only a handful of drones in the air (all of V Corps had just one), by the end of 2008, there were 5,331 unmanned aircraft systems in the American inventory, from vigilant Global Hawks and armed Predators that circle thousands of feet overhead to tiny Ravens that peer over the next city block. A similar explosion happened on the ground, where zero unmanned ground vehicles were used in a tactical sense during the 2003 invasion; by the end of 2008, the overall inventory crossed the 12,000 mark, with the first generation of armed ground robotics arriving that year as well. And notably, these are just the first generation, much like the iPod, already outdated by the time they hit the marketplace and battlespace.

In many ways, the most apt historic parallel to this era may well turn out to be World War I. Back then, strange, exciting new technologies, which had been science fiction a few years earlier, were introduced and then used in greater numbers on the battlefield. They did not really change the fundamentals of the war, and in many ways the technology was balky and fighting remained frustrating. But these early models did prove useful enough that it was clear that the new technologies were not going away and militaries had better figure out how to use them most effectively. It also became clear with such new technologies that their effects would ripple out, reshaping areas that range from the experience of the soldier at war and how the media reports war to asking troubling new questions about the ethics and laws of war. Much the same is just starting to happen with our unmanned systems today.

Doctrine, Schmocrine

Beyond these major questions of what happens when the robots of science fiction become political reality over the next few decades, there is a worry that force planners must start to pay attention to *doctrine*. A concern is that the United States is in a position similar to the British toward the end of World War I. It has developed an exciting new technology, which may well be the future of

war. And it is even using the technology in growing quantities (the number of unmanned ground systems in Iraq today is just above the number of tanks the British had at the end of World War I). But the United States does not yet have an overall doctrine on how to use them or how they fit together.

"There is no guiding pattern, no guiding vision," is the assessment of Colonel Robert Bateman, an Army officer in the Pentagon's Net Assessment office tasked with this area. A survey of U.S. military officers taken by Defense Advanced Research Projects Agency (DARPA) researchers backs him up. When the officers were questioned about robots' future in war, they identified developing a strategy and doctrine as the third *least* important aspect to figure out (only ahead of solving inter-Service rivalry and allaying allies' concerns).¹ One commentator described how the military's process of purchasing systems, despite not having fully developed operational plans for them, "smacked of attention deficit disorder."²

The issue is not that we are not buying these systems or arguing over who controls them, but rather that we are not dealing with the broader question of where and

"behind" the technology in how it conceptualizes its use in the field, especially in ignoring robots' growing smarts and autonomy: "They still think of robots as RC [remote control] cars."³ Similarly, at Foster-Miller (the team behind the TALON and SWORDS), executives point to the lack of an overall plan for support structures as evidence of the gap. They note that there is "nothing yet on logistics to support or maintain robots. . . . The Army is just bootstrapping it."⁵

The Mothership Has Landed

Developing the right doctrine for using unmanned systems is thus essential to the future of the force. If the U.S. military gets it right, it will win the wars of tomorrow. If it does not, it might instead be on the way to building what one Army officer called "the Maginot Line of the 21st century."⁶

Akin to the intense interwar doctrinal debates over how to use new technologies such as tanks and airplanes, there is not yet agreement on how best to fight with unmanned systems. But the contours are coming to light. Much as early armor proponents argued over whether tanks should only support infantry

robot executives complain that the military is "behind" the technology in how it conceptualizes its use in the field, especially in ignoring robots' growing autonomy

how it all fits together. As an Army sergeant complained, "Every time we turn around they are putting some new technology in our hands." When his unit in Iraq was given a Raven unmanned aerial vehicle (UAV), no one instructed them on how, when, or where best to use it, or how it integrated into broader operations. So his unit tried the drone out on their own, putting a sticker on it that said in Arabic, "Reward if you return to U.S. base." A few days later, they "lost it somewhere in Iraq" and never saw the drone again. (In 2008, two U.S.-made Ravens were found hidden in Iraqi insurgent caches, which not only points to how our adversaries are exploring these technologies, but also shows that insurgents operate under a "finders keepers" ethic).³

The makers of these systems concur. iRobot executives (the team behind the Packbot) complain that the military is actually

versus being massed together, or the debate over aviation's strategic versus tactical roles, there appear to be two directions in which the doctrines of unmanned systems might shake out, with a degree of tension between the operating concepts. The first is the idea of the *mothership*, perhaps best illustrated by the tack the U.S. Navy is unconsciously moving toward with unmanned systems at sea.

The sea is becoming a much more dangerous place for navies in the 21st century. Drawing comparisons to the problems that traditional armies are facing with insurgencies on the land, Admiral Vern Clark, former Chief of Naval Operations, believes that "the most significant threat to naval vessels today is the asymmetric threat."⁷ The United States may have the largest blue water fleet in the world, numbering just under 300 ships, but the overall numbers are no longer on its side. Seventy different nations now possess over 75,000 antiship missiles, made all the more deadly through "faster speeds, greater stealth

capabilities, and more accurate, GPS [global positioning system]-enhanced targeting.”⁸

The dangers are even greater in the brown water close to shore. Here, small, fast motor boats, like those that attacked the USS *Cole*, can hide among regular traffic and dart in and out. Relatively cheap diesel-powered submarines can silently hide among water currents and thermal layers. More than 300 varieties of undersea mines are available on the world market today, ranging from those that detonate by simple contact to a new generation of smart mines, stealthy robotic systems equipped with tiny motors that allow them to shift positions, so as to create a moving minefield.

As evidenced by the intense work with robotics at the Office of Naval Research, the Navy is increasingly turning toward unmanned systems to face this dangerous environment. Describing the “great promise” that unmanned systems hold for naval warfare, one report told how “we are just beginning to understand how to use and build these vehicles. The concepts of operations are in their infancy, as is the technology. The Navy must think about how to exploit the unmanned concepts and integrate them into the manned operations.”⁹

One of the early ideas for trying to take these technologies out to sea comes in the form of the Navy’s littoral combat ship (LCS) concept. Much smaller and faster than the warships used now, the ships are to be incredibly automated. For example, the crew on the

prototype ship in the series is only about one-fourth the size of the previous equivalent ship’s crew. But less important than the automation of the ship itself is the concept of change it represents. Besides the crew on board, there is also a crew on shore, sitting at computer cubicles and providing support from thousands of miles away.¹⁰ The LCS has a modular plug-and-play capacity, allowing various unmanned systems and the control stations to be swapped in and out, depending on the mission.

If the ship is clearing sea lanes of mines, it might pack onboard a set of mine-hunting robotic mini-sub. If the ship is patrolling a harbor, it might carry mini-motorboats that would scatter about, inspecting any suspicious ships. Or, if it needs to patrol a wider area, it might carry a few UAVs. Each of these drones is controlled by crew sitting at control module stations, who themselves only join the ship for the time needed. The manned ship really is a sort of moving mothership, hosting and controlling an agile network of unmanned systems that multiply its reach and power.

The mothership concept is not just planned for new, specially built ships like the LCS. Older ships all the way up to aircraft carriers might be converted to this mode. Already serving as a sort of mothership for manned planes, the aircraft carrier would add up to 12 unmanned planes to each carrier under the Navy’s current plan. This number should grow if we are interested in actual combat effectiveness. In a 2006 wargame, which simulated a battle with a “near-peer

competitor” that followed the mode of fighting an asymmetric war with submarines, cruise missiles, and antiship ballistic missiles (that is, China), Navy planners hit upon a novel solution. Because unmanned planes take up less deck space and have far greater endurance and range than manned planes, they reversed the ratio, offloading all but 12 of the manned planes and loading on 84 unmanned planes. Their “spot on, almost visionary” idea reportedly tripled the strike power of the carrier and gave it a reach that a standard mix of F-35s and F-18s would lack.¹¹ As UAVs shrink in size, even more drones could fly off such flattops. In 2005, one of the largest aircraft carriers in the world, the USS *Nimitz*, tested Wasp Micro Air Vehicles, drones that are only 13 inches long.¹²

The same developments with mother-ship concepts are starting to take place under the sea. In 2007, a Navy attack sub shot a small robotic sub out of its torpedo tubes, which then carried out a mission. The robotic mini-sub drove back to the mother submarine. A robotic arm then extended out of the tube and pulled the baby sub back inside,

the Navy’s current plan for aircraft carriers entails adding up to 12 unmanned planes to each carrier

whereupon the crew downloaded its data and fueled it back up for another launch. It all sounds simple enough, but the test of a robotic underwater launch-and-recovery system represented “a critical next step for the U.S. Navy and opens the door for a whole new set of advanced submarine missions,” according to one report.¹³

The challenge the Navy is facing in undersea warfare is that potential rivals such as China, Iran, and North Korea have diesel subs that remain absolutely quiet. When these subs hide in littoral waters close to shore, many advantages held by America’s nuclear subs disappear.

Unmanned systems, particularly those snuck in by a fellow submarine, “turn the asymmetry around by doing [with unmanned craft] what no human would do.” For example, sonar waves are the traditional way to find foes under the sea. But these active sensors are akin to using a flashlight in the dark. They help us find what we are looking for, but they also let everyone nearby know exactly where we are.



ADM Mullen observes robot used to detect and destroy roadside bombs during visit to exercise Mojave Viper

U.S. Navy (Chad J. McNeely)

Manned submarines instead usually quietly listen for their foes, waiting for them to make a noise first. By contrast, unmanned systems can be sent on missions and blast out their sonar, actively searching for the diesel subs hiding below. An enemy might be able to strike back, but it would only reveal its presence and not kill any Sailors.

Having its own fleet of tiny subs also multiplies the reach of a submarine. For example, a mother-submarine able to send out just a dozen tiny subs can search a grid the size of the Persian Gulf in a little over a day. A submarine launching a UAV that can fly in and out of the water (like Lockheed Martin's Cormorant design) extends the mothership's reach farther, even ashore.

Such capabilities will lead to new operating concepts. One naval officer talked about how the robotic mini-subs would be like the unmanned "whiskers." He continued, "They would act as 'force multipliers,' taking care of programmable tasks and freeing up manned warships to take on more complex ones. And they could be sent on the riskiest missions, to help keep Sailors and Marines out of harm's way."¹⁴ For example, the robotic subs could be sent in to clear minefields from below, lurk around enemy harbors, or track enemy subs as they leave port.

By pushing its robotic whiskers (and "teeth," as the systems can also be armed) farther away from the body, the mothership does not even have to be a warship itself. For example, with foreign nations increasingly unwilling to host U.S. bases ashore, the Navy is moving to a doctrinal concept of seabasing. These would be large container ships that act like a floating harbor. But such ships are slow, ungainly, and certainly not stealthy; hence, they are vulnerable to attack. A plan to protect them is called Sea Sentry.¹⁵ The seabase would not only provide a supply station for visiting ships and troops ashore, but also host its own protective screen of unmanned boats, drones, and mini-subs. Similar plans are being developed for other vulnerable targets at sea, such as civilian merchant ships, oil tankers, and even oil rigs.¹⁶

The concept of the mothership is not limited to the sea. For example, one firm in Ohio has fitted out a propeller-powered C-130 cargo plane so it can not only launch UAVs, but also recover them in the air. The drones fly in and out of the cargo bay in the back, turning the plane into an aircraft carrier that is actually airborne.¹⁷

Rethinking War with Mother

Such motherships will entail a significant doctrinal shift in how militaries fight. One report explained that its effect at sea would be as big a transformation as the shift to aircraft carriers, projecting that it would be the biggest "fork in the road" for the U.S. Navy in the 21st century.¹⁸

Naval war doctrine, for example, has long been influenced by the thinking of the American Admiral Alfred Thayer Mahan (1840–1914). Mahan did not have a distinguished career at sea (he reputedly would get seasick even on a pond), but in 1890 he wrote *The Influence of Sea Power Upon History*, which soon changed the history of war at sea.

Navy, Mahan argued, were what shaped whether a nation became great (an argument likely to appeal to any sailor). In turn, the battles that mattered were the big showdowns of fleets at sea, "cataclysmic clashes of capital ships concentrated in deep blue water."¹⁹ Mahan's prescriptions for war quickly became the doctrine of the U.S. Navy, guiding Teddy Roosevelt to build a "Great White Fleet" of battleships at the turn of the 20th century and shaping the strategy the Navy used to fight the great battles in the Pacific in World War II, as well as how it planned to fight the Soviets if the Cold War ever turned hot.

The future of war at sea, however, bodes to look less and less like what Mahan envisaged. With the new asymmetric threats and unmanned responses, any future confrontations will not merely take place between two fleets, made up of the biggest ships, concentrated together into one place. Moreover, where ships fight will not simply be the blue waters far from shore; these battles are predicted to take place closer to shore. The fleet would comprise not a number of ships

"concentrated" together as Mahan wanted, but rather would be made up of many tiny constellations of smaller, often unmanned systems, linked back to their host motherships. These ships, in turn, might be much smaller than Mahan's capital ships of the past.

*ships will not be
"concentrated" together as
Mahan wanted, but rather
be made up of many tiny
constellations of smaller, often
unmanned systems*

With Mahan's vision looking less applicable to modern wars and technology, a new thinker on 21st-century naval war doctrine may have to come into vogue in planning. The only twist is that he was born just 14 years after Mahan.

Sir Julian Stafford Corbett (1854–1922) was a British novelist turned naval historian. Notably, Corbett was a friend and ally of naval reformer Admiral John "Jackie" Fisher, who introduced such new developments as dreadnaughts, submarines, and aircraft carriers into the Royal Navy. While he and Mahan lived in the same era, Corbett took a completely different tack toward war at sea. They both saw the sea as a critical chokepoint to a nation's survival, but Corbett thought that the idea of concentrating all ships together in the hope of one big battle was "a kind of shibboleth" that would do more harm than good. The principle of concentration, he declared, was "a truism—no one would dispute it. As a canon of practical strategy, it is untrue."²⁰

In his masterwork on naval war doctrine, modestly titled *Some Principles of Maritime*

Technicians observe UH-19XRW Hoverwing during testing



U.S. Navy (John Joyce)

Strategy, Corbett opined that the idea of putting all one's ships together into one place did not induce all enemies into one big battle. Only the foe that thought it would win such a battle would enter it. Any other sensible foe would just avoid the big battle and disperse to attack the other places where the strong fleet was not (a theory that was borne out later by the German strategy in World War II). Moreover, the more a fleet concentrated in one place, the harder it would be to keep its location concealed. So the only thing Mahan's big fleet doctrine accomplishes in an asymmetric war, Corbett felt, is to make the enemy's job easier.

Instead, argued Corbett, the fleet should spread out and focus on protecting shipping lanes, blockading supply routes, and generally menacing the enemy at as many locales as possible. Concentrations of a few battleships were not the way to go. Rather, much like how the Royal Navy policed the world's oceans during the 1700 and 1800s, it was better to have a large number of tiny constellations of mixed ships, large and small, each able to operate independently. In short, it is a doctrine far more apt for motherships.

Even more shocking at the time, Corbett emphasized that a navy should think about not just operations in the blue waters in the middle of the ocean, but also what role it could play in supporting operations on land. Offers one biographer, "Well before it was fashionable, [Corbett] stressed the interrelationship between navies and armies."²¹ This seems much more attuned to the role of the U.S. Navy today, which must figure out not merely how to deter major state conflict and protect shipping lanes, but also how to aid the fight on the land (for instance, it carried out over half of the 15,000 airstrikes during the 2003 invasion of Iraq).

Mahan won the first round in the 20th century, but Corbett's doctrine may well come true through 21st-century technology.

Swarming the Future

The concept of motherships comes with a certain built-in irony, however. It entails a dispersion, rather than concentration, of firepower. But the power of decision in this doctrinal concept is still highly centralized. Like the spokes in a wheel, the various unmanned systems may be far more spread out, but they are always linked back to the persons sitting inside the mothership. It is a top-down, "point and click" model of war, where it is always clear who is in charge. General Ronald Keys, the Air Force chief of air combat, describes a

typical scenario that might take place in such a model applied to war in the air: "An [enemy] air defense system pops up, and I click on a UCAS [unmanned combat air system] icon and drag it over and click. The UCAS throttles over and jams it, blows it up, or whatever."²²

This philosophy of unmanned war is very mechanical, almost Newtonian, and certainly not one in which the robots will have much autonomy. It is not, however, the only possible direction that we might see doctrines of war move in, much as there were multiple choices on how to use tanks and airplanes after World War I. Places such as DARPA, the Office of Naval Research, and the Marine Corps Warfighting Laboratory are also looking at "biological systems inspiration" for how robot doctrine might take advantage of

rather than being centrally controlled, swarms are made up of highly mobile, individually autonomous parts

their growing technologic smarts and autonomy. As one analyst pointed out, "If you look at nature's most efficient predators, most of them don't hunt by themselves. They hunt in packs. They hunt in groups. And the military is hoping their robots can do the same."²³

The main doctrinal concept that is emerging from these programs is an alternative to motherships called *swarming*. Rather than being centrally controlled, swarms are made up of highly mobile, individually autonomous parts. Like birds in a flock or wolves on a hunt, each decides what to do on its own, but somehow still manages to organize into highly effective groups. After the hunt, they disperse. Individually, each part is weak, but the overall effect of the swarm can be powerful.

Swarming does not only happen in nature. In war, it is actually akin to how the Parthians, Huns, Mongols, and other mass armies of horsemen would fight. They would spread out over vast areas until they found the foe, and then encircle them, usually wiping them out by firing huge numbers of arrows into the foe's huddled army. Similarly, the Germans organized their U-boats into "wolfpacks" during the Battle of the Atlantic in World War II. Each submarine would individually scour the ocean for convoys of merchant ships to attack. Once one U-boat found the convoy, all the others would converge, first pecking away at the defenses, and

then, as more and more U-boats arrived on the scene, overwhelm them. And it is a style of fighting that is fairly effective. In a RAND study of historic battles going back to the time of Alexander the Great, the side using swarm tactics won 61 percent of the battles.²⁴

Notably, 40 percent of these wins were battles that took place in cities. Perhaps because of this historic success of urban swarms, this same style of fighting is increasingly used by insurgents in today's asymmetric wars. From the "Black Hawk Down" battle in Somalia (1993) and the battles of Grozny in Chechnya (1994, 1996) to the battles of Baghdad (2003, 2004) and Fallujah (2004), the usual mode is that insurgents hide out in small, dispersed bands until they think they can overwhelm some exposed unit. The various bands, each of which often has its own commander, then come together from various directions and try to encircle, isolate, and overwhelm the enemy unit. This echoes T.E. Lawrence's account of how his Arab raiders in World War I used their mobility, speed, and surprise to become "an influence, a thing invulnerable, intangible, without front or back, drifting about like a gas."²⁵

Swarms, whether of buzzing bees or insurgents with AK-47s, are made up of independent parts and have no one central leader or controller. So the self-organization of these groupings is a key to how the whole works. The beauty of the swarm, and why it is so appealing for unmanned war, is how it can perform incredibly complex tasks by each part following incredibly simple rules.

A good example is a flock of birds. Hundreds of birds can move together almost as if they have a single bird in charge, speeding in one direction, then turning in unison and flying off in a different direction and at a different speed, without any bird bumping into the other. They do not just operate this way for what one can think of as tactical operations, but also at the strategic level, with flocks migrating in unison over thousands of miles.

As one Army colonel asks, "Obviously the birds lack published doctrine and are not receiving instructions from their flight leader, so how can they accomplish the kind of self-organization necessary for flocking?"²⁶ The answer actually comes from a researcher, Craig Reynolds, who built a program for what he called "boids," or artificial birds.²⁷ As an Army report on the experience described, all the boids needed to do to organize themselves together as a flock was for each individual to follow three simple rules: "1. Separation: Don't

get too close to any object, including other boids; 2. Alignment: Try to match the speed and direction of nearby boids; and 3. Cohesion: Head for the perceived center of mass of the boids in your immediate neighborhood.”²⁸ This basic boid system worked so well that it was also used in the movie *Batman Returns* to create the realistic bat sequences.

Just as birds and boids follow simple rules to carry out complex operations, so might an unmanned swarm in war. Each system would be given a few operating orders and let loose, each robot acting on its own, but also in collaboration with all the others. The direction of the swarm could be roughly guided by giving the robots a series of objectives ranked in priority, such as a list of targets given point-value rankings. For instance, much like a bird might have preferences between eating a bug or a Saltine cracker, a robot's operating code might note that taking out an enemy tank is more useful than taking out an enemy outhouse. The swarm would then follow Napoleon's simple credo about what works best in war: “March to the sound of the guns.”

The Santa Fe Institute carried out a study on these proliferated autonomous weapons (PRAWNS), which shows how this concept might work in robotic warfare (Lockheed Martin has a similar program on robot swarms funded by DARPA, called the “Wolves of War”).²⁹ Very basic unmanned weapons would use simple sensors to find enemy targets, an automatic targeting recognition algorithm to identify them, and easy communications such as radio and infrared (as the scientists thought the military's current idea of using the Internet to coordinate operations was flawed because the Internet would be too easy to jam) to pass on information about what the other robots in the swarm were seeing and doing. The robots would be given simple rules, which mimic birds that flock or ants that forage for food. As the PRAWNS spread around in an almost random search, they would broadcast to the group any enemy targets they find. Swarms would then form to attack the targets. But each individual robot would have knowledge of how many fellow robots were attacking the same target, so if there were already too many PRAWNS attacking one target, the other systems would move on to search for new targets. In much the same way as ants have different types (soldiers and workers) operating in their swarms, the individual PRAWNS might also carry different weapons or sensors, allowing them to match themselves to the needs of the overall swarm.³⁰

While each PRAWN would be very simple, and almost dumb (indeed, their artificial intelligence would be less than the systems already on the market today), the sum of their swarm would be far more effective than any single system. Why drive a single SWORDS or Packbot into a building, room by room, to see if an enemy is hiding there, when a soldier could let loose a swarm of tiny robots that would scramble out and automatically search on their own?

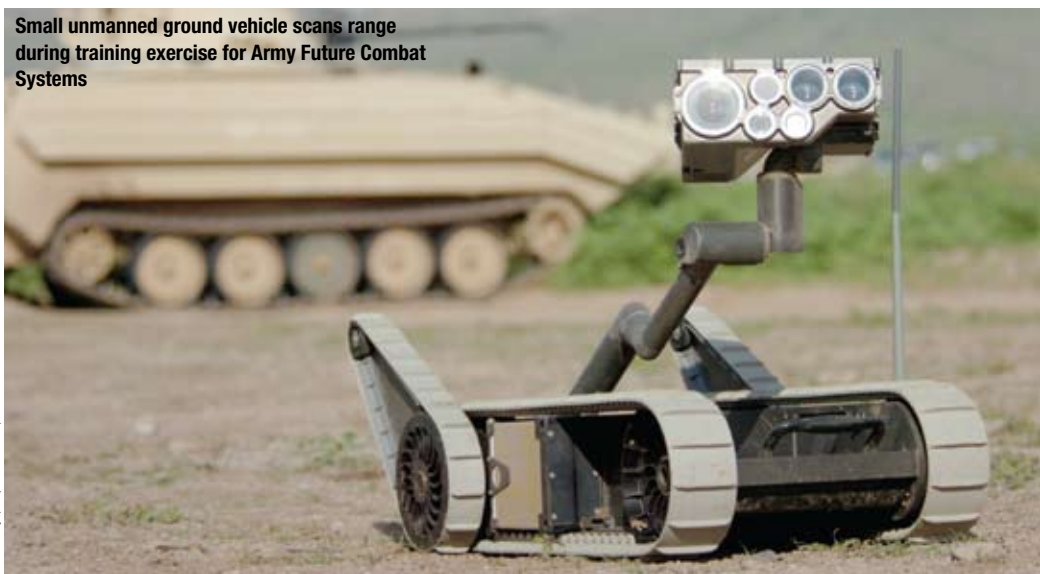
Mom against the Bees

Swarms are thus the conceptual opposite of motherships, despite both using unmanned systems. Swarms are decentralized in control

but concentrate firepower, while motherships are centralized but disperse firepower. If we imagine a system of motherships laid out on a big operational map, it would look like a series of hubs, each with spokes extending. Like checker pieces, each of these mothership hubs could be moved around the map by a human commander, much as each of their tiny robotic spokes could be pointed and clicked into place by the operators sitting inside the motherships. With swarms, the map would instead look like a meshwork of nodes. It would almost appear like drawing lines between the stars in the galaxy or a “map” of all the sites in the Internet. Every tiny node would be linked with every other node, either directly or indirectly. Where

robots would be given simple rules, which mimic birds that flock or ants that forage for food

Small unmanned ground vehicle scans range during training exercise for Army Future Combat Systems



U.S. Army (Stephen Barack)

Airmen carry experimental T-16 UAV to landing spot during exercise Northern Edge 2008



354th Fighter Wing Public Affairs (Jonathan Snyder)

the linkages cluster together is where the action in battle would be taking place, but these clusters could rapidly shift and move.

Every doctrine would seem to have its advantages and disadvantages. The mother-ship style of operations has specific roles for specific units, as well as central lines of communications. Chop off one limb and the task might not get done. By contrast, self-organizing entities such as swarms come with built-in redundancies. Swarms are made up of a multitude of units, each acting in parallel, so there is no one chain of command, communications link, or supply line to chop. Attacking a swarm is akin to going after bees with a sword. Similarly, swarms are constantly acting, reacting, and adapting, so they have a feature of perpetual novelty built in. It is hard to predict exactly what they will do next, which can be a very good thing in war.

The disadvantages of swarm systems are almost the inverse. Swarms may not be predictable to the enemy, but neither are they exactly controllable or predictable for the side using them, which can lead to unexpected results. Instead of being able to point and click and get the immediate action desired, a swarm takes action on its own, which may not always be exactly where and when the human commander wants it.

The above is almost like what Gandhi said while sitting on the side of the road as a crowd went by. "There go my people. I must get up and follow them, for I am their leader!"³¹ The human commander's job with a swarm will be to set the right goals and objectives. They may even place a few limits on such things as the "radius of cooperation" of the units. Then, other than perhaps parceling out reserves and updating the point values on each of the enemy's target types to reflect changing needs, the human commanders would, as Naval Postgraduate School expert John Arquilla describes it, "basically stay the hell out of the way of the swarm."³² This type of truly "decentralized decision making," says one Marine general, "flies in the face of the American way of war. . . . But it works."³³

Whether it is motherships, swarms, or some other concept of organizing for war that we have not yet seen, it is still unclear what doctrines the U.S. military will ultimately choose to organize its robots around. In turn, it is also unclear which doctrine will prove to be the best, as it is fully possible that, like the British and

French in the interwar years, America's Armed Forces could make choices that seem brilliant at the time but later prove utterly wrong.

Indeed, just as the optimum with tanks turned out to be combined arms units, the choices may also mix and mingle. The concepts of swarms and motherships could be blended, with human commanders inserting themselves at the points where swarms start to cluster. It would not be the same as the direct control of the mothership's hub and spoke system, but it would still be a flexible way to make sure the leader was influencing events at the major point of action.

Whatever doctrine prevails, it is clear that the American military must begin to think about the consequences of a 21st-century battlefield in which it is sending out fewer humans and more robots. Just as the technologies and modes of wars are changing, so must our concepts of how to fight and win them. **JFQ**

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Chinese Disaster Relief Operations

Identifying Critical Capability Gaps

By NIRAV PATEL

The aftermath of the Sichuan earthquake relief efforts has uncovered significant capability gaps in the ability of the People's Liberation Army (PLA) to effectively and rapidly respond to major natural disasters. Exposure of these shortcomings provides a unique insight into China's capability to project power using its ground forces in large-scale contingency operations that require expansive logistics, planning, and interservice cooperation. The lack of an integrated relief campaign between the PLA Air Force (PLAAF) and PLA hindered the execution of the emergency relief orders issued by President Hu Jintao. This immediate and firm

response from the Chinese civilian leadership contrasts with the Chinese military's inefficient execution of the relief efforts. The revelation of these capability gaps pierces through an abundance of literature from Chinese news sources and leaders on the "total success" of relief operations to illuminate deficiencies that could affect Chinese military operations from kinetic to nontraditional to future relief efforts.

The now-famous pictures of Premier Wen Jiabao consoling newly orphaned children and parents who lost their children

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PLA soldiers participate in earthquake recovery effort, May 2008



UN Photo (Evan Schneider)

have been instrumental in allaying Sichuan residents' fears of government neglect and also conferring international praise on Beijing's communist government. When speaking to Chinese strategists on a recent trip to China, I found that respect and admiration for their government were palpable. It was as if China underwent a major political revolution but not through the barrel of a gun. For President Hu, the earthquake relief efforts have taken China one step closer to becoming a "harmonious society." This has also increased Beijing's standing as a "responsible stakeholder" in the international community. Witness, for example, Singaporean Prime Minister Lee Hsieng Loong's statement that the "Sichuan

Many of the deficits in PLA relief operations are attributed to a poorly integrated command structure, aging equipment, and personnel who are not trained to deal with humanitarian and disaster relief contingencies on the scale of the Sichuan earthquake. As one Chinese expert noted, the relief efforts were the equivalent of responding to a full-scale war.⁴ If this is the case, and on a logistical level it seems accurate, there is much to learn from China's disaster relief operations in terms of PLA capabilities and effectiveness in potential contingency operations.

Fundamental to discussions of a militarily ascendant China is Beijing's ability to project power. The earthquake relief efforts have called

decade, the Politburo has slowly consolidated, centralized, and made efficient once archaic decisionmaking processes. Even though these reforms will likely take decades to be effectively internalized in the formal policymaking process, signs of fledgling bureaucratic cultures are evident, particularly in the Ministry of Civil Affairs, whose response to the earthquake was textbook in nature. The relief efforts exposed major gaps between the actual political response and implementation and execution of the formal relief orders—an indication that even though the central government has a monopoly on power and influence, the bureaucratic system is slow to respond and execute large-scale military-led campaigns.



U.S. defense attaché and Chinese defense officials supervise unloading of U.S. relief supplies

U.S. Air Force (Chris Vadnais)

earthquake showed how much China has changed and offered a glimpse of its future: a more open and self-confident nation."¹ Hsieng's praises were echoed by British Prime Minister Gordon Brown, who said that the Chinese leadership's response to the disaster in Sichuan was "nothing short of magnificent."²

There is a growing disconnect between these perceptions about prompt decisions from the central government and the PLA's relief efforts in Sichuan Province. Many of these divergences are attributable to the central government's control over information dissemination, which has made analysis of the operations difficult at best. Government-controlled reports in China showcase successful PLA relief campaigns, while Western media reports (though limited in depth) and eyewitness accounts are citing tremendous shortcomings.³

into question many assumptions about Chinese capabilities. This article identifies shortcomings in the PLA's ability to respond to natural disasters, using the earthquake relief operations as a guide. The first part analyzes the effectiveness of China's decisionmaking authority. The second part seeks to determine capability gaps in the PLA's ability to respond to natural disasters while attempting to correlate these gaps with its ability to project power.

Decisionmaking Authority

It is important to differentiate the formal decisionmaking process from the PLA's response to the disaster itself. The Chinese government is highly compartmentalized, with the Politburo and the Standing Committee of the Chinese Communist Party being the most influential components.⁵ Over the last

the relief efforts exposed major gaps between the actual political response and implementation and execution of the formal relief orders

The government's response to the earthquakes displayed a highly integrated and streamlined response mechanism to natural disasters. This response was anchored in a decade-long effort to consolidate formal decisionmaking authorities for disaster relief operations. *The Law of the People's Republic of China on Earthquake Prevention and Disaster Reduction* and *The Law of the People's Republic of China on Flood Prevention* are just two examples of heightened bureaucratic awareness

in dealing with significant natural disasters.⁶ In 2003, the Ministry of Civil Affairs established the working *Rules of the Ministry of Civil Affairs in Response to Unexpected Natural Disasters*, which is meant to guide the central government's response to domestic natural mishaps.⁷ A complex web of authorities guides disaster relief efforts. China's response strategy is composed of a unified leadership—headed by President Hu—that controls the overall situation. At the regional level, various actors implement disaster relief strategies—in theory the regional government is considered the primary relief body, but in practice the PLA and central government seem to exercise greater control.⁸ This seems particularly obvious in the aftermath of the Sichuan earthquake.

The creation of disaster relief management architecture⁹ is in sharp contrast to the last major earthquake disaster relief operation conducted in Tangshan in 1976, where the government's response was slow, uncoordinated, and negligent. Signs of improvement in the decisionmaking process were on display prior to the May 2008 earthquakes. Immediately after the January 2008 blizzard left over 100 million Chinese stranded, the central government quickly allocated the necessary resources and authority to help thaw out hundreds of thousands of square miles of land. In both examples, China's response was effective, but its implementation lacked the same efficient resolve.

In the immediate aftermath of the earthquake, President Hu quickly and effectively directed government focus and resources to assist in the implementation of relief operations in Sichuan Province. Premier Wen's leadership was also instrumental in centralizing coordination efforts to ensure that citizens in the hardest hit areas were given top priority to receive water and food rations.¹⁰ The General Staff Headquarters of the PLA also immediately issued an instruction calling for the Chengdu Military Region, PLAAF, and Armed Police to respond to the disaster.¹¹ Similar processes were followed in the aftermath of the January 2008 snowstorms that paralyzed over 19 provinces and left hundreds of millions seeking to return home for the Lunar Spring stuck in the snow.¹²

The government's effective decisionmaking process displayed in both of these situations is likely to continue as central government emergency relief procedures become more refined and consolidated and as leaders seek to balance their political interests with the needs of their people. Preventing a rebellion similar to the Tiananmen uprising remains a major

driver for quick, high-level responses from the central government. The PLA has also carefully observed and internalized—as evident in the 2006 PRC Defense White Paper's description of disaster relief operations as the government “loving the people”¹³—how quick and effective response to disasters can generate positive public and international opinions of China.¹⁴ The centrality of effective and integrated information operation (IO) campaigns will thus remain a key part of disaster relief efforts. “Winning the hearts and minds” of disaffected citizens is a lesson the Chinese have learned from American-led tsunami relief operations in 2004. The leadership in Beijing will also continue to take steps to improve its international image as a receptive and responsible government. This will ensure that the central government efficiently responds to humanitarian disasters. China's IO campaign and censorship of stories critical of relief efforts have created a one-way stream of information that has in many ways colored over actual shortcomings.

What is becoming apparent is that advancement in decisionmaking processes in Beijing is not translating into effective response or enforcement in disaster relief operations. The central government's response to domestic disasters has not carried over into an effective physical demonstration of PLA capabilities. Actual PLA responses to the 2008 snowstorm were woefully inadequate, as Kent Ewing, professor at Hong Kong's International School, noted: “In the end, the central government committed 2.7 billion Yuan (US\$376 million) to disaster relief, but the lack of any effective disaster management plan was a glaring omission in central government planning.”¹⁵ This criticism is becoming prevalent again as relief workers in Sichuan continue to struggle to provide adequate support to millions of quake victims.

Beijing's efforts in the aftermath of the May 12 earthquake provide significant insight about the capabilities the PLA is likely to pool to deal with future disaster relief operations and potentially large-scale deployments requiring airlift assets and heavy equipment for ground transport. It is important to keep in mind that the earthquake relief effort has been the broadest deployment of PLA troops since the 1979 border war with Vietnam.

More than 140,000 military personnel have been mobilized in the aftermath of the Sichuan earthquake. These soldiers are “from all sectors of the military—from paratroopers to the strategic-missile divisions.”¹⁶ Such divergent composition highlights a lack of specialized

brigades or divisions capable of responding to particular hybrid contingencies, such as disaster relief, and more broadly to full-spectrum wars (for example, counterinsurgency campaigns and nationbuilding exercises).

The military has been instrumental in relief operations because many roads and bridges leading to the epicenter were destroyed, which inhibited mobility of heavy vehicles and rescue workers. Airlift capabilities have also been extremely important for the delivery of food, water, and critical relief personnel to the hardest hit and least accessible areas. However, despite laborious work by hundreds of thousands of Chinese workers and nongovernmental organizations, progress has been limited and anxiety in the region is increasing as relief assistance gains have slowed and the death toll continues to soar, now eclipsing 70,000.

Beijing's efforts in the aftermath of the earthquake provide insight about large-scale deployments requiring airlift assets and heavy equipment for ground transport

Although there has been progress in recovery operations, various news reports and private conversations reveal significant challenges that the PLA—and its antiquated ground capabilities—will continue to face in future disaster relief or even military operations. Many current failures are attributable to the Chinese perspective that the sheer mass of the workforce can supplant modern capabilities such as earthmoving equipment.¹⁷ Contrast this with national security writings that claim the PLA is undergoing a major revolution in military affairs (RMA) “to transform its military from an army based on Mao Zedong's principles of mass-oriented, infantry-heavy *People's War*, to what many foreign observers perceive to be an agile, high-technology force.”¹⁸ The relief efforts quickly exposed how far China's ground and air assets are from successfully modernizing and becoming the nimble forces necessary to effectively project power. Hong Kong-based military analyst Andrei Chang noted that

the relief mission had exposed weakness in the PLA. The force was struggling to carry out operations that would be standard during modern warfare. . . . The disaster areas are

like real battlefields. Good coordination, cooperation among different forces is necessary in today's battlefields. But the PLA just couldn't do it.

Airlift Capability Gaps

The Sichuan earthquake is a quintessential example of an airlift-dependent disaster relief operation. Roads, bridges, and tunnels were destroyed, limiting access to almost 40,000 square miles of earthquake-devastated lands. Despite President Hu directing Chinese resources to respond to the crisis, significant airlift capability gaps have hindered responses to relief operations, which require strong air-, land-, and seabased assets. Airpower is demonstrated not only by possession of air superiority fighters, but also by a full-spectrum composition of capabilities to respond to any challenge to a nation's security. Airlift is a critical element of a nation's ability to project power overseas, and China's shortcomings in this area highlight big gaps in its airpower. Many of the capabilities and assets required for large-scale disaster and humanitarian relief operations are also useful for direct action operations. For example, strategic airlift and force structures optimized to deal with postdisaster reconstruction have utility in counterinsurgency operations that focus on alleviating conditions that make radicalism more likely (such as poverty). In these operations, the center of gravity is not kinetic effects but meeting the needs of disenfranchised people. Strategic airlift is also useful in troop deployments for large-scale military operations, as evinced by over 60 years of aviation history from the Berlin airlift to the 2004 tsunami core group efforts. In contemporary terms, ferrying tens of thousands of soldiers into landlocked environments, such as Afghanistan, requires significant heavy lift and rotor lift capabilities.

Poor air relief efforts have exposed a significant crack in the PLAAF's ability to respond to major challenges, both traditional and non-traditional. There are five main reasons for this shortfall: aging aircraft in limited supply, a relatively young and inefficient defense industrial base, lack of recognition within the PLAAF of the need to invest in equipment for peacetime operations, inadequately trained pilots,¹⁹ and lack of clarity between China's civilian and military leadership.

Aging and Limited Airlift Assets. A significant constraint for the PLA is the PLAAF's limited and aging strategic airlift capability, which is likely to constrain major

air-based operations in the future. During earthquake relief operations, the Chengdu Military Regional Air Force (CMRAF)—the smallest in terms of aircraft number and assets—was initially in charge of coordinating the air-based relief campaign. Its aviation element consists of two fighter divisions and one airlift division.²⁰ Formed in 2005, the 4th Airlift is woefully underequipped: it has a few Mi-17V7 helicopters for search and rescue missions, and its proposed upgrade of Il-76MD transport planes and Il-78 aerial tankers has been seriously delayed by Russia, the maker of these platforms.²¹ The CMRAF is in charge of the defense of Sichuan Province and is the first responder to such crises as the 2008 earthquake. Unfortunately, its inadequate capabilities severely undermined initial transport-dependent relief operations. The CMRAF is just a microcosm of poor PLAAF heavy-lift capabilities.

Chinese military expert Dai Xu noted that “looking at the PLA's equipment and rapid response capabilities from the perspective of modern warfare, there is still a great gap between the PLA and advanced militaries.”²² A lack of capable airlift also complicated the efforts of relief workers, who arrived via train and commercial flights to Chengdu.²³ In many instances, these workers were forced to hike through harsh terrain, leaving many in poor shape to assist when they reached the quake-ravaged villages.²⁴

diversion of airlift platforms from all over the country indicates that the PLAAF's ambitious growth plan is far from being accomplished

According to Dennis Blasko, former U.S. Army Attaché at the U.S. Embassy in Beijing, “Because the military did not have heavy-lift helicopters, vital equipment like excavators and cranes had to be brought in on roads obstructed by landslides, slowing the pace of the rescue operations.”²⁵ Even though the Chinese deployed air assets, the fleet was limited and was therefore forced to pool civilian assets for relief operations. Assets were diverted from PLA Navy air wings to provide environmental reconnaissance assistance to address damage in regions that were too difficult to navigate by land. More than 100 MiG-17 and Black Hawk helicopters were dispatched from every national military region, and China's Y-8 transport planes provided important assistance to devastated areas.²⁶ Diversion of airlift platforms from all over the country indicates that the PLAAF's rather ambitious growth plan is far

from being accomplished or balanced to meet future strategic needs.

The PLA's limited airlift capabilities were enhanced in this case by foreign assistance. The decision to accept international support was a major shift in posture. Prior to the earthquake, the PLA was hesitant to accept external help, but afterward allowed U.S. Pacific Command to send two C-17 Globemaster III transport planes to Chengdu—delivering upward of 200,000 pounds of disaster relief supplies.²⁷ Russia dispatched 15 Il-76 military-use transport planes to deliver some 350 tons of humanitarian aid. A Russian MiG-26 heavy-duty transport helicopter is assisting China's only MiG-26 in transporting heavy digging machines to the Tangjiashan quake-lake.²⁸ Pakistan sent two C-130 transport planes, while South Korea and Taiwan also contributed disaster relief assistance. Even corporate donors provided airlift. For example, Federal Express furnished critical heavy lift for ferrying humanitarian supplies to disaster-stricken areas.²⁹ Furthermore, Beijing's decision to temporarily divert some Air China resources to ensure the transportation of PLA soldiers and resources to Chengdu was vital.³⁰

Defense Industrial Base. Compounding the PLA's limited airlift capability is a relatively weak indigenous development program for transport planes. The PLAAF's main strategic transport aircraft, the Il-76, which was used in early responders' efforts to deliver relief sup-

plies and personnel to the epicenter, is manufactured in Russia. The Y-8 is a Soviet-era, Ukrainian-designed plane with an airframe built in the 1960s; however, recent avionics and engine upgrades have enhanced the once handicapped plane.³¹ The MiG-17 and the MiG-26 transport helicopter with its remote-sensing technology are also built in Russia. Meanwhile, the first helicopter to land in Wenchuan was a U.S.-made S-70 Black Hawk. Ultimately, Chinese disaster relief efforts were hindered by a lack of capable heavy- and rotor-lift capabilities. Reliance on foreign airlift assets to bridge PLA shortcomings is not a comfortable path for PLA authorities, but it highlights a major gap in their capabilities.

The Chinese helicopter industry is one of the nation's weakest sectors. The earthquake relief operations highlighted that additional

and improved helicopters will be necessary to respond to future contingencies, which will likely pose tremendous strain on the national economy and government as well as on state security. China is in the process of procuring and producing more helicopters, such as the Mi-171 (transport airlift),³² and its Aviation Industry Corporation II is also in a multiyear plan to resuscitate Chinese transport-lift capacity.³³ However, without a greater investment in domestic production of transport planes, it is unlikely that the existing airlift fleet will be able to handle future large-scale relief operations. A lack of sufficient open-source evidence on procurement of rotor- and heavy-lift assets is a major constraint in analyzing the effectiveness of Chinese responses to future contingencies, but major changes in PLAAF doctrine indicate that aviation platform procurement trends are tilting toward so-called next-generation platforms.³⁴

Shift in PLAAF Doctrine. The 10th Communist Party of China Congress made a major announcement in 2004, branding the PLAAF a “strategic air-force.” This move not only embraced the development of a more futuristic and independent air force service culture, but also forced a major reorientation in aviation platform acquisition priorities. A more independent service culture has given the PLAAF political space to focus on a large-scale buildup of long-range assets designed to achieve air superiority and dominance.³⁵ This trend is reflected in the 2008 edition of the annual Pentagon report on China’s assessment of PLAAF assets and procurement trends.³⁶ Dai Xu believes the Chinese army has the experience to establish an aviation force. The questions are how to “aviationalise” the army based on this experience and whether there is sufficient support for such a transformation.³⁷ The latter issue remains a major concern that is perhaps intractable given the PLAAF’s doctrinal shift.

Efforts to modernize and acquire fourth- and fifth-generation air superiority fighters continue to occupy budgetary resources, leaving PLA efforts to rebalance and modernize its existing forces on a relatively poor foundation. Competition for resources has in recent years created a perception that nontraditional security operations—such as peacekeeping and humanitarian-based relief initiatives—compromise efforts to deal with larger traditional security challenges—particularly, a cross-straits contingency.³⁸ Focus on next-generation platforms, a major element of the PLA RMA program, provides some indication of where

China anticipates strategic challenges and also offers a potential explanation for its aging and limited heavy-lift capability. It is unknown whether the earthquake relief operations have sufficiently demonstrated that the PLAAF should recapitalize its existing heavy-lift fleet or else invest in new strategic lift platforms.

Inadequate Training. The lack of a rigorous training regimen will likely undermine future disaster relief campaigns. According to one Shanghai-based expert, “[b]ecause of an insufficient budget, many pilots can only fly once a year. . . . The mountainous terrain in Sichuan made an air-drop operation very difficult. Inexperienced pilots dared not fly too low.

That is why they had to drop material from higher up, and that explains why the landings were not accurate.”³⁹ For example, during the immediate aftermath of the quake, poorly trained pilots tried and failed twice in landing a helicopter in the ravaged epicenter.⁴⁰ Airlift

competition for resources has created a perception that nontraditional security operations compromise efforts to deal with a cross-straits contingency

Chinese military vehicle moves humanitarian relief supplies



U.S. Air Force (Chris Vachals)

operations require constant preparedness and acclimatizing to conditions that necessitate thorough and regular training exercises. Failure of the PLAAF to allocate resources to meet these needs will undermine not only disaster relief operations but also combined arms campaigns that require joint land and air assets. A lack of joint training further highlights significant failures in the PLA ability to implement its modular force restructuring plan, which places greater value on interservice cooperation from the division to battalion level. If the PLA is to be faced with contingencies that require operational assistance from both the PLA and PLAAF, reconciliation of operational roles and command must be given greater priority.

Civil-Military Relations. Compound-ing interservice rivalry is the lack of balance between the civilian leadership and the PLA—a balance vital in mediating interservice disputes and ensuring joint service cooperation. According to David Shambaugh, “Since the mid 1990s, there has been an evident, if subterranean, three-way struggle being played out among the army, party, and government—with the army seeking greater autonomy. . . . No radical restricting of party-army relations has been undertaken.”⁴¹ Absent the development of service cultures that are able to coexist under the mantle of civilian leadership, the likely direction of PLA efforts will remain largely divergent from the CCP’s proscriptions.

Effective civilian control is important to ensure that the slew of disaster relief laws promulgated by the Standing Committee over the

past decade is implemented in PLA operations. The number of laws on the book pertaining to disaster relief operations will ring hollow if the Central Military Commission is not able to mediate interservice disputes. Strong civilian control may not have enhanced China’s disaster relief effort, but it would have provided greater continuity in the implementation of the Standing Committee’s relief policies. In terms of future large-scale operations, failure to mediate civil-military disputes could endanger the continuity that militaries require to efficiently execute and achieve their stated objectives.

Ground-based Relief Efforts

For over three decades, the PLA’s central focus has been preparation for a possible Taiwan contingency. Shaping the military to deal with disaster relief operations as a core competency will meet with tremendous opposition from PLA leaders, who perceive non-Taiwan operations as trading off with preparedness for a cross-straits operation, particu-

mobilizing a hundred thousand soldiers to manually dig trenches rather than spending millions on earthmoving equipment is a gamble the PLA and the government seemed comfortable taking

larly if missions involve foreign deployments. Leaving soldiers ill equipped and undertrained will generate further challenges.

PLA efforts in the Sichuan earthquake were overwhelmed in many ways by the devastated roads and ground-based access routes. Moreover, earthmoving equipment and heavy vehicles for transport of debris were inadequate because of the sheer magnitude of the disaster.⁴² The government made public requests for donations of rescue equipment, rubber boats, demolition tools, shovels, and cranes. With over 4 million homes demolished and roads and bridges destroyed, the PLA has been unable to match its assets to the enormity of the problem. Even after heavy earthmoving equipment was made available, destroyed roads prohibited entry into disaster zones. As dams began to show signs of fatigue, concerns grew about getting construction equipment on site to fortify the structures. PLA and civil authorities went so far as to solicit assistance from Caterpillar, which specializes in the manufacture of heavy vehicles and earthmoving equipment.

Land-based efforts, perhaps more than airlift shortcomings, highlight Chinese perceptions of the value of mass manual labor over modern equipment such as bulldozers. Reports of soldiers forming human chains and digging trenches and water diversion routes with shovels indicate both a lack of high-tech resources and a friction against implementation of RMA processes. This is in sharp contrast to reports that the “PLA is committed to hardening the army with both tracked and wheeled armored vehicles.”⁴³ James Mulvenon, a specialist on the Chinese military at the Center for Intelligence Research and Analysis, argues that although troops were mobilized, they were basically “a bunch of guys humping through the mountains on foot and digging out people with their hands . . . it was not a stellar example of a modern military.”⁴⁴

Mobilizing a hundred thousand soldiers to manually dig trenches, move rubble, and support dams rather than spending millions on earthmoving equipment is a gamble the PLA and the Chinese government seemed comfortable taking. Balancing the needs of the RMA process with procurement of more traditional heavy-lift equipment is a challenge that the army seems to have overlooked. Whether it commits resources to replenish and modernize these assets remains an undecided but logical course of action given the deficiencies identified during the relief operations.



PLA soldiers construct temporary housing for earthquake survivors, May 2008

UN Photo (Evan Schneider)

As China becomes further dependent on foreign sources of energy, it will find itself vulnerable to security threats that require more than sheer military force. Its ability to secure key pipelines in insurgent strongholds in West Africa, Baluchistan, and Southeast Asia will pose tremendous security risks and will require a force structure that is mobile and capable of responding to unconventional challenges. More than anything, the Iraq War has impressed upon the intelligentsia that even China is not immune to terrorist threats. Adapting the force structure to deal with such challenges should be a top priority, but as demonstrated by the PLA's relief efforts, it currently is not. The most capable ground forces are able to conduct both kinetic and nonkinetic operations. Mechanics, engineers, systems planners, and language specialists are vital to reconstructing war-torn insurgent strongholds and ensuring security and stability. The earthquake relief efforts demonstrated a rather monochromatic and antiquated Chinese force structure.

There is a silver lining to China's relief efforts. Regardless of major shortcomings, the People's Liberation Army has been able to identify capability gaps that should be addressed—and successful units that should be expanded—to enhance its capacity to deal with the growing threat of natural disasters.

This article does not argue that China has failed in its earthquake response—on the contrary, it identifies successes in the decision-making process. However, the relief operations revealed many deficiencies in the PLA ability to implement and execute the Standing Committee's edicts. It is hard to draw direct operational lessons from these shortcomings, but absent greater investment in strategic airlift, the PLA is likely to be constrained on a number of fronts, both during peacetime and in response to security challenges that require the transport of troops outside of the mainland.

The government response to the earthquake has highlighted many interesting capacities of both the PLA and Chinese Communist Party bureaucracy. In the immediate aftermath of the earthquake, the central government effectively and efficiently passed national emergency measures and directed all necessary resources to devastated regions. This response highlighted a more efficient bureaucratic process that seemed to internalize many laws from decades past governing disaster relief and emergency powers. On the other hand, the implementation and execution

of the relief operations were relatively slow and unorganized. The PLA and its component branches lacked the platforms and capabilities to execute the Standing Committee's orders. The magnitude of the earthquake also demonstrated the challenges that the PLA is unable to deal with and that will prove particularly useful in determining its ability to respond to future military-led campaigns, whether humanitarian or warlike in nature. For the foreseeable future, procurement priorities will likely trend toward a more robust RMA-driven agenda, leaving many of the capability gaps identified in this article unaddressed. **JFQ**

NOTES

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China-Africa Relations in the 21st Century



Over the past decade, while the United States and other Western powers focused on counterterrorism and traditional aid programs in Africa, the People's Republic of China (PRC) developed a broad, unified strategy toward Africa. This policy spans government ministries and uses all four instruments of national power. "China's African Policy," announced in January 2006, is a bold step for the PRC as it demonstrates a fundamental foreign policy change for a government that once valued noninterference as its highest standard. Although the policy still espouses China's historic respect for the sovereignty of other countries, the scope of its activities reveals a clear intent to advance Beijing's involvement in Africa beyond historical levels and build strategic partnerships on the continent that will substantially increase China's economic, political, and military presence. With U.S. Africa Command (USAFRICOM) now having full operational capability, it is important for officials to understand the extent of the PRC's engagement in Africa, where it is going in the future, and the implications for USAFRICOM.

By JENNIFER L. PARENTI

UN Photo (Eric Kanstein)



Chinese contingent of United Nations mission in Liberia holds ceremony, 2005

History

China and Africa share a common history with respect to colonialism and their economic and political developments. China's 2006 African policy stems from the resulting decades of growing formal and informal Sino-African cooperation since World War II. The underlying principles behind this cooperation, documented at the first Asian-African conference in Bandung, Indonesia, in 1955, declared Beijing's respect for the sovereignty of other nations and pledged to avoid interfering in the internal affairs of other countries.

Yet despite the nature of these principles, China's recent actions demonstrate a more proactive involvement on the African continent. Over the past decade, a shift in domestic politics made it acceptable and necessary to engage in matters external to the PRC. Understanding the roots of this cultural shift is central to understanding the intent behind China's African policy and its interests on the continent.

China's New Outlook

More than anything, China's growing economy, especially over the past decade, forced a shift in foreign policy in order for the country to maintain its economic growth. The 9.5 percent rate of growth since 1996 necessitated the change by creating an increased demand for energy and raw materials to support Chinese industries. To compete with the United States and the European Union in the African oil market, the PRC had to get more involved in regional and local organizations and affairs, in contrast to its previous policies of noninterference.

China's newfound prosperity also enabled the change by bolstering its people's confidence in their nation's world position. On the African continent, the effects of this transformation are evident in two key areas: an ever-increasing presence of Chinese expatriated civilians and military forces, and increased economic and political investment. By engaging in this manner, China hopes to draw attention and business away from Africa's traditional aid and trading partners—the United States and the European Union.¹ Ultimately, this need to support a growing

economy and the desire to take a larger role in world affairs underpin nearly all of Beijing's activities in Africa.

PRC Policy in Action

China's African policy categorizes its interests in Africa into four "fields"—political; education, science, culture, health, and social; peace and security; and economic²—which are comparable to the diplomatic, information, military, and economic instruments of U.S. national power. The following details many of China's activities over the past decade in these four areas while making predictions about where they might go in the future.

Diplomatic. Over the past decade, China set out to improve diplomatic relations with Africa on two primary fronts: first, institutionally through official forums; and second, bilaterally through political exchange programs and an expanded embassy and consular presence. In general, these efforts had three purposes: to help spread China's message of mutual benefit and equality to African leaders, to create opportunities for Chinese businesses abroad, and to encourage African nations to support the "One China Policy" with respect to Taiwan.³

the African Union (AU). Although Beijing has discussed a partnership with the AU, it has established no formal programs except a few legislative exchanges that promote cultural understanding but do not provide a forum for discussing specific initiatives. In addition to China's institutional efforts, it increased diplomatic engagement with the nations of Africa by establishing political exchange programs and expanding embassy and consulate representation both in Africa and in China. To this end, the PRC established national bilateral committees, political consultations between comparable foreign ministries (that is, defense-defense, energy-energy), and sister-city programs. These programs were designed to facilitate cooperation and learning among lower levels of government.⁷

Behind many of these diplomatic programs is the PRC desire to gain international support for its policy on Taiwan. To this end, China is trading economic and political support to African nations in exchange for their formal denouncement of Taiwan.⁸ It has applied this policy consistently over the past 10 years, reestablishing formal diplomatic ties with many African countries after they ended diplomatic relations with Taiwan. Under these

China hopes to draw attention and business away from Africa's traditional aid and trading partners—the United States and the European Union

China's premiere institutional venture in Africa is the Forum on China-Africa Cooperation (FOCAC). The most recent FOCAC, held in Beijing in November 2006, had the participation of 48 African nations, including 43 heads of state.⁴ The resulting action plan laid out 73 bilateral agreements for the years 2007–2009.

In addition to the FOCAC, China provided substantial support to the New Partnership for African Development (NEPAD). That support helped NEPAD further its objectives to eradicate poverty, promote sustainable growth and development, integrate African countries into the global economy, and accelerate the empowerment of women.⁵ This formula of providing assistance to a preexisting aid organization proved successful and contributed to a 5 percent economic growth rate on the continent in the 3 years following China's partnership with NEPAD.⁶

Notably absent from these institutional endeavors is a formal Chinese delegation to

conditions, China resumed diplomatic relations with South Africa, the Central African Republic, and Guinea-Bissau in 1998; Liberia in 2003; Senegal in 2005; Chad in 2006; and, most recently, Malawi in December 2007.⁹ As a result, only four African nations formally recognize Taiwan today—Burkina Faso, Swaziland, The Gambia, and Sao Tome and Principe.

In general, China's diplomatic efforts in Africa over the past decade were considered favorable. However, there are indications that some of its activities constituted deliberate interference in African domestic politics, which has weakened its diplomatic standing in some areas. These activities provide strong evidence of China's shift away from its historical noninterference policy. Most notable among these actions are interference in Zimbabwean and Zambian presidential elections.

In Zimbabwe, China delivered propaganda bearing the insignia of Robert Mugabe's incumbent political party prior to

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the 2005 election.¹⁰ In addition, the Chinese are reported to have offered Mugabe jamming devices to use against pro-opposition radio stations.¹¹ During the 2006 Zambia elections, China's ambassador threatened to cut diplomatic relations with the country if voters elected the pro-Taiwanese opposition candidate. Given China's role as a leading investor in Zambian industries, especially copper, the loss would have been a huge blow to the Zambian economy. Despite strong anti-Chinese business sentiment in Zambia prior to the election and popular support for the opposition candidate, the incumbent president won.¹² These actions are clear evidence of China's willingness to get involved in foreign domestic politics.

Military. The past decade also saw widespread changes in China's foreign defense policy. The 2006 White Paper, *China's National Defense in 2006*, charges the People's Liberation Army (PLA) with "implementing the military strategy of active defense"¹³—a term that has grown to provide justification for use of military force outside the PRC's borders. For the first time, the paper outlines the PLA's responsibilities to:

- take the initiative to prevent and defuse crises and deter conflicts and wars
- take part in international security cooperation, strengthen strategic coordination and consultation with major powers and neighboring countries, and conduct bilateral or multilateral joint military exercises
- play an active part in maintaining global and regional peace and stability.

Bolstered by the change in policy, the PLA has regular military interaction with 41 African countries and pledges to increase current levels of involvement substantially before 2010. Overall, PLA activities in Africa can be grouped into three major categories: military exchanges, peacekeeping operations, and arms sales.¹⁴

Generally, there are three types of exchanges in place: formal military attachés, high-level exchanges, and functional exchanges. The PLA's attaché program has grown extensively in the past 20 years, and not only in Africa. Just in the past 10 years, Beijing has more than doubled its worldwide attaché representation at home and abroad. Currently, it has attaché representation in one-third of African nations, and, in return, 75 percent of these countries have attachés in

China. The PRC further intends to increase its attaché presence in Africa, according to the 2006 FOCAC Action Plan.

In addition, the PRC sponsors numerous exchanges between the PLA and foreign militaries. In the past 2 years, senior PLA officials have visited more than 60 countries, and high-ranking defense officials from more than 90 countries have visited China.¹⁵ At a lower level, the functional military exchanges are where real military cooperation occurs. These exchanges focus on core military capabilities, such as training, logistics, personnel, policy, and force structure. Many exchanges are unreported, but China has at least 34 active high-level and functional exchanges with African nations.

self-defense of the receiving country, not compromising regional and/or international security, and not interfering with a nation's internal affairs.

There is continued and valid debate regarding the sincerity of China's application of these guiding principles with respect to its Foreign Military Sales (FMS) program. Despite China's insistence that its weapons

the PLA has regular military interaction with 41 African countries and pledges to increase current levels of involvement substantially

Chinese soldiers serving under United Nations–African Union Mission in Darfur arrive in Sudan, 2008



In addition to military exchanges, China's participation in United Nations (UN) peacekeeping operations in Africa is on the rise. In 2006, it provided over 1,600 personnel to peacekeeping operations in Africa—about 70 percent of its global peacekeeping efforts.¹⁶ The PRC made pledges at both the 2006 FOCAC Summit and recent UN Security Council meetings to increase support to peacekeeping operations and provide additional training and equipment to African peacekeeping forces.

Similarly, Chinese arms sales to Africa are increasing. Between 1996 and 2003, China became the world's second largest exporter of weapons to Africa, accounting for over 10 percent of total imports.¹⁷ According to PRC policy, all arms sales should meet three key objectives: supporting the legitimate

are not fueling regional conflict or instability, there is evidence to the contrary. In fact, most Chinese FMS over the past 15 years are going to some of the least stable areas of Africa, including Zimbabwe, Congo, and Sudan. Clearly, FMS and Chinese military investment in Africa are on the rise and will continue as long as there is a market for these weapons and the resources to procure them. It is also clear that as China continues its bid to become a major world actor, it will need to exercise more judgment to avoid international scrutiny that could undermine its strategic objectives.

Future PLA operations in Africa are expected to include more security operations and increased maritime presence. PLA naval activity in the waters around Africa is on the rise, under the guise of joint exercises, antiterrorism activities, and general maritime

security. In addition, threats to Chinese businesses and personnel in Africa, including the kidnapping and murder of Chinese workers in both Ethiopia and Nigeria, highlight an emerging security threat for the PRC. The PLA is expected to engage in both of these areas more openly (directly and indirectly through training and equipping local forces) to ensure the safety of PRC personnel and business interests.

Economic. Since 2000, the PRC's economic investment in Africa increased substantially. Three major factors facilitated this growth: increased reliance on natural resources, especially oil; relaxed policies to promote Chinese business activities in Africa; and deliberate courting of high-level African

strings attached to most Western offers (for political reform, human rights accountability, or weapons restrictions).¹⁹ The formula proved successful for China in securing several long-term lucrative oil deals.

Typical of these transactions was China's dealings with Angola in 2005–2006. In 2005, China gave a US\$2 billion oil-backed loan to Angola to improve its weakened infrastructure. In 2006, it added US\$1 billion to that loan.²⁰ During this timeframe, it appears that Chinese companies secured exactly US\$3 billion of infrastructure contracts in Angola, with most of the required workforce coming from imported Chinese laborers.²¹ Two months after the signing of the second loan, Angola's state-run oil company relin-

gic information campaign to improve China's image on the continent and has opened the doors for many of its companies to conduct business there. Leading this campaign is President Hu Jintao, who has made a series of high-visibility state visits to Africa since taking office in 2003. Hu's public engagements generally include announcements of increased aid or debt relief and, therefore, are viewed favorably by his African counterparts.

Information. China's increased presence in Africa brought with it concerns about the true intent of its activities. Many African leaders are still concerned that China will not deliver on promised initiatives from the 2006 FOCAC Summit. In addition, there is a perception among many leaders that Beijing is deliberately choosing the most corrupt governments (Angola, Zimbabwe, Sudan, and Nigeria) to do business with.²³

The most difficult perception China has to overcome, however, is that the money it is earning in Africa will be invested back home, with little long-term benefit to African nations. This perception stems primarily from use of imported Chinese laborers for the majority of its manpower requirements and concerns over the quality of its investments, particularly construction projects, which can vary substantially between companies and regions.²⁴ In addition, because Chinese companies are able to underbid African businesses (primarily due to subsidies from the PRC government), many African companies have been forced out of business by the new competition.²⁵ Realizing its perception problems and sticking to its message of gains for all involved, China has embarked on a multifaceted strategic information campaign to improve relations.

This campaign, which permeates nearly every level of African society, has two high-level objectives: to promote a positive image of China and to improve cultural understanding between China and African nations. To this end, the PRC has sponsored numerous initiatives in both Africa and China that encourage greater interaction between the peoples and cultures.

In the educational forum, Beijing's initiatives include setting up 100 rural schools; providing training for education officials and teachers at all levels; building Confucius Institutes to teach the Chinese language in Africa; establishing government programs to encourage teaching African languages in China; and creating a number of student



PLA engineers serve in United Nations mission in Democratic Republic of the Congo, 2008

UN (Marie Frechon)

political and business leaders to protect Chinese business interests.

The primary driver behind the increase in Chinese economic activity is the need for oil and other natural resources. In 2003, China became the world's second largest consumer of oil, behind the United States. In anticipation of their growing requirements, Chinese petroleum companies started intensifying African oil investment in 1995. Today, sub-Saharan Africa accounts for 28 percent of China's total oil imports.¹⁸

The PRC's general strategy for securing petroleum resources has been to pursue the cooperation of oil-rich countries with nonbinding economic aid, infrastructure projects, and debt relief. These programs are attractive to African countries because they provide benefit to the host nation without the

quished 40 percent of an offshore oil block to a Chinese company for a \$1.4 billion investment.²² Angola is repaying the loans with 10,000 barrels of oil per day.

the PRC's strategy for securing petroleum resources has been to pursue the cooperation of oil-rich countries with nonbinding economic aid, infrastructure projects, and debt relief

As part of its focus on promoting investment in oil-rich African nations, Beijing is paving the way by courting political and business leaders. This effort is also part of a strate-

exchange programs.²⁶ On the medical side, China pledged to help construct 30 hospitals, build 30 centers for the prevention and treatment of malaria,²⁷ and donate US\$8 million to the World Health Organization to build African countries' ability to respond to public health emergencies.²⁸

In addition to these and other cultural programs, China recently granted Approved Destination Status (ADS) to 26 African nations. This designation indicates that a country is preapproved for Chinese tourists and expedites the visa process for Chinese citizens wanting to travel abroad. The PRC also promised to extend the special status to more African countries and enacted measures that will make it easier for Africans to vacation in China.²⁹

The effectiveness of the strategic information campaign is evident in Chinese credibility among the African leaders whom the PRC is trying to influence. In general, these moves are viewed positively, and many aspects of the message resonate well with African leaders, especially the perceived common heritage, the strong focus on the state, and principles of noninterference.³⁰ The participation in the 2006 FOCAC Summit demonstrated that the majority of African leaders are still encouraging Chinese investment in their countries to the greatest extent possible. It is too early to tell if Beijing's newest efforts in the strategic information campaign can counter the negative perceptions of its business practices on the continent; however, the next few years should provide ample evidence to determine if the information campaign will improve China's overall reputation.

Implications

The depth and breadth of China's activities in Africa have definite implications for U.S. policy and the mission of USAFRICOM. Some authors think the emergence of the command onto the African security landscape will only complicate an already tumultuous situation.³¹ Others believe that the United States and China are already on the path to conflict over African oil.³²

Yet many of these same authors also recognize that the United States and PRC are at a culminating point with respect to Africa—a point where their interests are converging and engagement is at its highest level since World War II. Given these conditions, USAFRICOM is in a unique position to engage the PRC to defuse tensions and explore areas of military

cooperation that are beneficial to both nations and their African partners.

A simple comparison of *China's National Defense in 2006* and the 2006 U.S. National Security Strategy reveals several common objectives. To recall, *China's National Defense in 2006* outlined the following objectives for the PLA:

- take the initiative to prevent and *defuse crises and deter conflicts* and wars
- take part in *international security cooperation*, strengthen strategic coordination and consultation *with major powers* and neighboring countries, and conduct bilateral or multilateral joint military exercises
- play an active part in *maintaining global and regional peace* and stability.

Comparing this to the following subset of tasks from the 2006 U.S. National Security Strategy, several commonalities are immediately apparent:³³

- strengthen alliances to *defeat global terrorism* and work to prevent attacks against us and our friends
- work with others to *defuse regional conflicts*
- develop agendas for *cooperative action with other main centers of global power*.

There are clear overlaps in the areas of defeating global terrorism, defusing regional conflicts, promoting international security cooperation, and developing cooperative agendas with other major powers. These common interests present multiple opportunities for cooperative engagement militarily, politically, and economically.

the majority of African leaders are still encouraging Chinese investment in their countries to the greatest extent possible

Institutional Framework

China's recent experiences demonstrate that working through institutions is a formula for success in Africa. Its efforts through NEPAD, FOCAC, and the United Nations have had not only the most positive impact in Africa, but also the highest approval ratings among African nations. Currently, where its institutional approach is weakest is in a formal

partnership with the African Union. In contrast, USAFRICOM already has a formal delegate to the AU.³⁴

To build on the PRC's previous successes and take advantage of existing relationships, USAFRICOM should establish a formal organization for cooperative foreign security ventures in Africa. This organization could be established as part of the AU Peace and Security Council (PSC) and would provide a forum for foreign countries to coordinate, deconflict, and potentially consolidate disparate security efforts, including protecting assets and natural resources and training and equipping African peacekeeping and military personnel.

Working through this kind of forum could have many advantages. First, it ensures coordination and deconfliction among foreign powers. Second, it uses an existing institution as the backbone for discussions. Next, it promotes cooperation instead of competition among key investors. Finally, it consolidates efforts within a single forum.

This forum would not need to take ultimate decisionmaking authority out of the hands of its participants. While encouraging countries to pursue combined efforts where appropriate, the forum could still be effective without taking control over a participating country's bilateral security agreements with AU member nations or other security efforts on the continent. With the international community in wide agreement that promoting security and enabling regional peacekeeping and military capability are in the common good, this venture seems the natural first step in establishing any cooperative security agenda.

Security Cooperation

U.S. and Chinese investments in Africa will not be able to expand, even collectively, without adequate security measures to protect the personnel and resources involved. To this end, five of USAFRICOM's seven goals deal directly with promoting regional security.³⁵ At the same time, China is transforming the PLA into a global force and is looking for opportunities to use it. Both nations and the African Union can draw immediate gains from two areas of cooperation: maritime security and peacekeeper training.

Both the United States and China have a strategic interest in maritime security in African waters, especially in the protection of international commercial shipping lanes

and oil infrastructure off the Horn of Africa, in the Niger Delta, and in the Gulf of Guinea. Currently, both countries are engaged in separate efforts to protect these regions, but their common interests of protecting access to natural resources, combating piracy and global terrorism, and promoting regional stability make African maritime security a natural part of a U.S.-PRC cooperative agenda. By joining forces in maritime security, the United States and PRC will benefit from the additional assets and reduced redundancies inherent in a combined approach. Additionally, AU member states benefit from fewer economic losses and enhanced overall regional security. Finally, as the PLA Navy expands its presence in the Pacific and Indian Oceans, the opportunity for cooperation on maritime security in Africa provides meaningful experience for future cooperative missions between the two navies.

Similarly, the United States and China would both gain from joining efforts on peacekeeping in Africa. Currently, the premiere peacekeeper-training program is the U.S. Department of State's African Contingency Operations and Training Assistance (ACOTA) program. Unfortunately, ACOTA does not have consistent funding and may not be able to attain its overall goals. Meanwhile, the PLA needs peacekeeper training and seeks an expanded role in African peacekeeping operations.

By inviting PLA forces to join in ACOTA efforts, the United States satisfies several objectives. First, it increases the pool of qualified peacekeepers to join in UN peacekeeping efforts. Second, it gains valuable experience dealing directly with the PLA, which will be beneficial in future operations inside and outside of Africa. Third, it secures an additional funding source for ACOTA efforts. At the same time, the PLA gains the training and experience it requires to expand its role in African peacekeeping operations and benefits from the experience of working with U.S. forces. Ultimately, the AU benefits from having more peacekeepers available to help secure its regions and from working in conjunction with U.S. and PLA forces.

Military Infrastructure Development

One of the biggest barriers to African nations' attempts to sustain their own military and peacekeeping forces is their dilapidated transportation infrastructure.

Both the African Standby Force (the military arm of the PSC designed to be a contingency response force for African crises and peacekeeping operations) and the military arm of the Economic Community of West African States suffer from severe problems because of the current infrastructure. These conditions prevent forces from deploying effectively, limit logistics support to deployed forces, curtail training opportunities, and make many missions too costly to undertake.³⁶

In his recent posture statement to Congress, USAFRICOM commander, General William Ward, acknowledged, "The U.S. must encourage the improvement of civilian transportation infrastructure and its security across the African continent, but the near term requires an increase in the quantity and capacity of military air and rapid sealift platforms made available to AFRICOM." At the same time, the PRC needs additional air and sea routes between Africa and China to encourage more trade and cooperation.

By jointly encouraging the development of dual-use transportation infrastructure components, the United States and China can meet key strategic objectives while simultaneously supporting a major goal of the African Union.³⁷ Specifically, the types of projects that

would further strategic objectives for all three players are:

- construction of secure, joint civil-military use airfields with associated support facilities (hangars, terminals, fuels storage, and so forth) capable of supporting heavy lift aircraft (for example, C-17s and Boeing 777s)

- modernization of strategic port facilities, especially in the central regions of Africa's east and west coasts. Projects should focus on increasing reliability and capacity of port operations.

- modernization and construction of roads and railways leading from port facilities to inland population centers. Efforts should focus not only on material improvement, but also on increasing security along inland highways and railways.

In choosing which infrastructure projects to support and how, it is important to consider the lessons learned from China's efforts. Specifically, the United States and China should make every effort to ensure that local companies, employing native Africans, conduct the majority of the effort, whether for design, construction, or security. Where foreign companies are used, African

U.S. and Chinese investments in Africa will not be able to expand without security measures to protect the personnel and resources involved



Secretary Gates meets with Chinese Central Military Commission official in Beijing

companies should be trained to operate and maintain the facilities once construction is completed. Overall, the focus needs to be on enabling future growth for African countries.

Another area of potential military infrastructure growth is in space. Africa's vast equatorial regions are prime real estate for the world's burgeoning space requirements—equatorial ground locations are ideal for satellite tracking and control. In addition, Africa's east central coast is one of only a few places in the world where satellites can be launched directly into equatorial orbits. This is significant because these orbits provide the best coverage for most satellite uses and are the only way to achieve a geostationary satellite orbit, which provides 24-hour coverage over a single point on the Earth. Currently, most countries launch satellites into nonequatorial orbits and then perform costly orbital transfers to achieve these desired positions.

Unfortunately, Africa's equatorial regions are extremely unstable. An east coast equatorial launch site would be situated in war-torn southern Somalia, and the majority of the equatorial ground sites are located in the faction-controlled regions of the Democratic Republic of Congo. Still, with outside security assistance, this could be an area of strong potential economic and military growth for the nations of the AU and should remain in the sights of the United States and PRC for long-term security and assistance projects (at least 10–20 years out).

China's activities in Africa show that it has significant influence in many regions and that it is poised to increase this influence over the coming years. These activities should be a significant concern to the United States and U.S. Africa Command because of the potential for conflict and the need to protect U.S. interests. Yet despite the perception that the United States and People's Republic of China have polarized political and economic approaches, the two powers share many common interests in Africa.

A cooperative approach to stability and development, working with China and the African Union, offers significant benefit to all parties. First, a cooperative approach helps ensure Chinese efforts do not undermine U.S. and African short- and long-term interests. Second, it provides U.S. and Chinese activities the legitimacy and support of the African Union. Third, it leverages the combined efforts of two major world powers for more

benefit to the African nations. Finally, it gives U.S. officials the diplomatic, cultural, and military experience of working with both Chinese and African counterparts, which paves the way for future engagement, inside and outside of Africa.

These shared interests present multiple opportunities for cooperation between the United States and PRC in Africa. Potential areas for cooperation include maritime security, peacekeeper training, and development of a robust military transportation infrastructure for use by African forces. However, to reap the full benefit, the United States, through USAFRICOM, must take the lead in developing this cooperative approach by working through the African Union to engage China on the issues of security and development. **JFQ**

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SHOULDER TO SHOULDER

The Marine Corps and Air Force in Combat

By DANIEL J. DARNELL and GEORGE J. TRAUTMAN III



X-35 approaches KC-135 for midair refueling

In the spring of 2009, the U.S. Air Force will host the next Marine Corps–Air Force Warfighter Talks, the third in an annual series of high-level discussions between the two Services. Last year, 31 general officers of three- and four-star rank, including commanders serving in the U.S. Central Command (USCENTCOM) area of responsibility (AOR), attended the 2-day session held in Washington, DC. These talks provided a forum for senior leaders of the Marine Corps and Air Force to meet face to face to discuss and resolve key inter-Service warfighting issues, many of which impact the ability to think and fight as a joint team.

History

The 2007 and 2008 Warfighter Talks grew from a series of discussions, over several years, between general officers of the two Services. A February 2006 memorandum from the chief of staff of the Air Force was the impetus for more formal guided talks between Marine Corps and Air Force leadership. The commandant of the Marine Corps and chief of staff of the Air Force determined that whether serving in combat overseas or in the halls of the Pentagon, the two Services must be fully integrated, synergistic joint partners. To that end, they directed annual formal talks, which formalize a review process designed to examine in

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depth the ways in which the two Services combine, share information, plan, and fight.

Over the past 3 years, senior leaders at the talks have engaged in robust discussions about such issues as supporting/supported command relationships, air command and control, gaps and seams in systems and processes, and the difficulties inherent in overcoming the friction and fog of active combat. As a result, the Service chiefs stood up tiger teams to look for ways to improve the level of coordination and cooperation between the two Services to fulfill obligations to the joint force.

The first tiger team was formed in 2007. The commandant and chief of staff directed members to focus on improving dialogue between the Services and creating a common understanding of the use of aviation assets to enhance joint warfighting capabilities. The team was also charged to assess whether current command and control procedures were fully supporting the joint force commander (JFC) mission. In the end, the team discovered numerous systemic factors hampering Service command and control systems contributions.

Among the command and control obstacles was an extremely complicated Operation *Iraqi Freedom* airspace construct, resulting somewhat from numerous revisions and modifications required to facilitate the reintroduction of a Marine Air-Ground Task Force (MAGTF) during *Iraqi Freedom*

II. The seams created between the Marine and Air Force airspace were a constant source of command and control friction. Additionally, command relationships were sometimes unclear. This was especially evident in the special considerations afforded Marine Corps aviation and how these assets properly fit into the JFC theater-wide aviation requirements and priorities. Marine Corps aviation is an integral component of the MAGTF, and efforts to split it apart from other task force elements fail to recognize this synergy. Finally, the absence of sister Service liaison personnel in some critical command nodes such as the Marine Corps Tactical Air Command Center were found to hamper operational transparency and mutual understanding between the Marine Corps and Air Force aviation forces operating throughout the USCENCOM AOR. These factors, among others, were the basis for the establishment of a follow-on tiger team with a more focused charter aimed at finding specific solution sets to these identified issues.

among the command and control obstacles was an extremely complicated Operation Iraqi Freedom airspace construct

The second tiger team, led by a general officer from each Service, spent 2 weeks in January 2008 traveling throughout the USCENCOM AOR. It conducted a comprehensive review of current policies and issues while talking with commanders and operators at all levels and from both Services, including all major Air Force and Marine aviation command and control nodes. The team briefed Service leadership, and the trip report informed the Warfighter Talks held in April 2008. These talks provided direction to Service commands and staffs to resolve bilateral issues and fostered a mutual respect and greater trust and understanding between the two Services. The team report gave answers to the tough questions these officers had asked of those in the AOR. Their findings were the basis for many of the tasks that came out of the talks.

The issues discussed at the talks fell into four categories, two broad and deep, and two specific and doctrinal. The two broad, higher level issues were:

- integration of air forces and air support to and for ground forces, their schemes of maneuver, and the differences in the way Marine Corps and Army ground units request, plan for, and execute the use of aviation

- difficulties inherent for all components of a joint force when shifting from major combat operations to an irregular/counterinsurgency fight.

These issues led into two specific areas:

- integration of the Air Force Theater Air Control System (TACS) and the Marine Corps Marine Air Command and Control System (MACCS) to create a truly integrated, joint theater-wide air command and control system

- relationships between and among the components of a joint task force in combat, need for exchange officers, and necessity to train jointly in peacetime as we will fight together in war.

Toward Common Ground

Senior leaders discussed these issues in depth throughout the last Warfighter Talks, with each engendering lively debate. More important, each Service vowed to work through their differences and overcome obstacles to finding common ground and

F/A-18A Hornet from VMFA-232 "Red Devils" lands aboard USS *Nimitz*



U.S. Navy (David Mercil)

workable solutions. At the end of the talks, the commandant and chief of staff directed their respective staffs to investigate five specific tasks. The first three involve command and control relationships and enablers, and the other two focus on exchange and information-sharing structures. All of these tasks should improve our ability to think, plan, and fight more effectively as a joint team.

1. Formalize an Air Force–Marine Corps Battle Command Training Initiative.

The objective of this initiative is to incorporate Air Force liaison elements and TACS functionality into Marine Corps combat exercises, major mission rehearsal exercises, and battle command training programs. Air Force officers and enlisted personnel will participate in training venues such as the Weapons and Tactics Instructor course, MAGTF Staff Training program, Desert Talon, and predeployment mission rehearsal exercises. Marine Corps personnel will participate in the Air Force Operational Command Training program, U.S. Air Force Weapons School exercises, Blue Flags, and other applicable venues. Through this initiative, the Marine Corps and Air Force will seek new ways to integrate people and aviation command and control capabilities into their respective training exercises and advanced schoolhouses.

2. Broaden and Deepen the Combined Air Operations Center (CAOC)–Tactical Air Command Center (TACC) Relationship.

The two Services explored and assessed the Marine Corps TACC ability to assume an “in extremis” temporary role as the CAOC. The Services trained to this role in major upcoming exercises. The MACCS is fully compatible with other joint command and control systems, including the CAOC, and the capabilities organic to the MACCS (such as the TPS-59 radar and air controllers) will be leveraged to improve visibility and situational awareness of airspace that existing sensors cannot observe in order to improve the overall theater-wide common operating picture. Both Services believe that by practicing this capability they will improve understanding of Marine capabilities and limitations and improve Marine interoperability in the joint command and control environment.

3. Explore Opportunities to Enhance TACS and MACCS Understanding in the USCENTCOM AOR through a More Robust Liaison Officer Program. The Services will seek to add liaison officers between the TACS and MACCS to improve interdepen-

dence and enhance theater-wide operational transparency. The Marine Corps has expressed continued interest in receiving a small Air Force element to provide liaison within the TACC at Al Asad Air Base in Iraq. An experienced Marine colonel with a dedicated staff will continue to serve in the Air Force’s USCENTCOM CAOC as the Marine liaison officer.

4. Expand the Number and Scope of Marine–Air Force Exchange Billets (as differentiated from liaison officers). One of the best ways to learn from each Service’s “best practices” and to understand how to leverage respective unique contributions to the joint fight is to exchange personnel—that is, giving highly qualified officers and enlisted personnel the opportunity to learn from and share ideas while actively serving as part of an operational unit or advanced tactics schoolhouse.

To this end, Marine and Air Force leaders are conducting a thorough review of existing exchange billets in order to propose modifications and possible additions to make the program more robust. The Marine Corps and Air Force currently have nine officers in exchange billets. Marine aviators are flying Air Force F-15C, F-22, F-16, and

MH-53 aircraft, and one Marine officer is instructing forward air control procedures. Air Force officers are flying Marine Corps F/A-18, UH-1N, and F-5 aircraft. The two Services have agreed to explore expanded opportunities for F-35A and F-35B, KC-130J, AC-130, EC-130, EA-6B, MV-22, and CV-22 aircraft, as well as unmanned systems officer exchanges.

The Air Force and Marine Corps also plan to double the size of the aviation command and control exchange program. They have agreed to send one Marine air traffic control expert and one Marine air defense control expert to serve in a like capacity with Air Force units, while the Air Force sends two of their officers with similar skills to serve with the Corps. Next, exchange officers from the CAOC and Air Support Operations Center will serve in the Marine Advanced Tactical Schoolhouse as instructors, and two Marine like-qualified experts from the Direct Air Support Center and TACC will serve on exchange in the U.S. Air Force Weapons School as instructors.

5. Build a Full-spectrum Overview of Current and Future Electronic Warfare and Attack Systems. Electronic warfare (EW) as

the Marine Corps and Air Force will seek new ways to integrate people and aviation command and control capabilities in their respective training exercises



U.S. Air Force (Veronica Pierce)

a warfighting discipline must evolve from its historic contexts of counter-integrated air defenses, aviation survivability, or intelligence-gathering functions. In current operational environments, we see asymmetric applications of tactical EW in support of ground maneuver. Due to the understandably tight focus on current threats, however, cooperative Service efforts to develop next-generation EW capabilities have languished. All four Services have independently pursued unique capabilities without significant coordination to synergize effects, address new concepts of operations that leverage advanced technologies, and fully and effectively integrate nonlethal fires into the JFC command and control toolkit.

While the EW environment tends to be highly classified, opportunities and programs exist within each Service that provide significant enhancement to the operational

capabilities of forces to deliver the right mix of technology, systems, and concept of operations to the joint battlespace. Nowhere is this more apparent than with the F-35, a very capable EW platform in its baseline configuration. With Service cooperation, the Joint Strike Fighter (JSF) block upgrade rubric provides for technology and capability insertion on a regular basis. The Marine Corps and Air Force are dedicated to enhancing EW capabilities (attack, support, and protection) through this improvement process. Expectations include adding the Navy's Next Generation Jammer system to the JSF, as well as expanding the radar, EW, and communication, navigation, and identification subsystems to increase the tremendous capabilities of the platform. There are boundless opportunities not only to expand JSF mission capabilities, but also to develop cooperative EW systems. As

such, this forum provides senior leaders the opportunity to address issues and agree to collaborative courses of action that maximize Service investment while delivering the most appropriate capabilities to warfighters.

Moving Forward Together

The Marine Corps–Air Force Warfighter Talks are an effective means for senior leaders from these Services to engage on myriad topics, and they have provided a guidepost to which Airmen and Marines can anchor themselves in the execution of joint warfare. Through candid and professional dialogue, the talks yield a greater appreciation for the best practices and unique contributions that each Service brings to the joint fight as well as a better understanding of each other's perspective on current challenges. Upcoming talks promise to increase the understanding between the Air Force and Marine Corps, ultimately creating a more effective, agile, and interdependent joint force. **JFQ**

there are boundless opportunities not only to expand JSF mission capabilities, but also to develop cooperative EW systems

F-35B short takeoff and vertical landing variant at takeoff



Lockheed Martin

Inside the Detention Camps *A New Campaign in Iraq*

By MASON BROOKS and DREW MILLER

U.S. Air Force (William Greer)



Guards check Iraqi detainee's name off list upon release from custody

The United States invaded Iraq in 2003 without a detailed plan for handling large numbers of detainees in counterinsurgency (COIN) warfare. One consequence of this situation was the debacle at Abu Ghraib prison that surfaced in 2004. Since then, the United States has struggled to regain the moral “high ground” and the trust of the Iraqi people.

After the Abu Ghraib scandal, the U.S. military mainly concentrated on enforcing conventional “care and treatment” standards for the humane handling of detainees.¹ Insurgents, on the other hand, challenged coalition force (CF) authority in the camps and worked to recruit and train insurgents inside U.S. detention facilities. But in the past year, the handling of detainees has undergone a transformation. The new approach encourages detainees to embrace a more moderate view of Islam, reject violence, and support the government of Iraq. While the jury remains out on the reorientation effort’s long-term effect (curbing recidivism or cramping insurgent recruitment, for example), it provides a useful case study of adaptation in war.

Today, the detention situation in Iraq is improved over a year ago. A calmed situation in the camps, coupled with a belief that faster release could yield political advantages, sparked a proposal to accelerate detainees’ release. Polls, interviews, and other sources showed that Iraqis (especially Sunnis) overwhelmingly see CF detention and detainee treatment as unfair. Former Iraqi Minister of Defense and Finance Ali Allawi noted, “Heavy-handed security measures . . . played a large part in crystallizing anti-Coalition

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feelings in the Sunni areas.”² Anger stemming from perceptions of unfair detention by “occupiers” provides support for insurgents and fertile ground for recruiting. Accelerated release of detainees can reduce this alienation effect and meet political demands to free Iraqis, but it also risks having them rejoin the insurgency and could jeopardize fragile security gains.

Pressed to inform General David Petraeus of complicated decision aspects, the Multi-National Force–Iraq (MNF–I) staff directed an assessment of the proposal’s risks and benefits. This article describes the new detainee policies, summarizes the effort to assess benefits and risks, highlights the reaction to that assessment, and explains early (and expected) campaign impacts.

New Detainee Policies

Major General Douglas Stone, USMCR, assumed command of Task Force 134 (TF–134) in 2007, with responsibility for the

detention of thousands of Iraqis captured by U.S. forces. He brought to the job a new approach—something he credits to his experience as a successful businessman and entrepreneur. Stone stresses practical problemsolving and initiative, along with listening to detainees to understand their motivations. He speaks Arabic and routinely studies the Koran to enhance his grasp of Iraqi culture.

General Stone began by separating insurgent agitators from other detainees, giving moderates in the camps the freedom to choose a path other than violence. The result convinced the general that at least a third of all detainees could be influenced to reject insurgency within the camps’ controlled detention setting. A new goal emerged: turning detainees into cooperative moderates. A multilayered process aimed at attaining that goal is summarized in figure 1 and elaborated below.

Separation of Moderates from Irreconcilables. TF–134 uses information from detainee entrance screening at a transition barracks to identify moderates and extremists. While resource-intensive, this screening and resulting isolation of extremists improve camp security by giving moderates the freedom to avoid and reject extremist views and activities. It also enables detainees to volunteer for education programs, cooperate with guards, and transform their outlook and behavior.

Opportunity for Religious, Academic, and Vocational Education. Programs address the lack of education and training in Iraq.

Using local *imams* to teach and discuss moderate interpretations of Islam exposes detainees to nonviolent thinking. While voluntary, these sessions are well attended, and many participants say that this is their first exposure to moderate religious views. Job training and education classes target basic learning and labor skills to enhance employment possibilities—a leading cause of recidivism. Detention facilities now offer classes on sewing, masonry, and carpentry.³

screening and resulting isolation of extremists improve camp security by giving moderates the freedom to avoid and reject extremist views and activities

Exploiting Tribal Influences. Iraqi tribes form a societal hierarchy accommodating the political, security, and social needs of members. Tribes help shape individual behavior and are therefore essential to reintegrating released detainees back into society.⁴ (TF–134-sponsored studies show stronger societal bonds afford even a single detained Iraqi the potential to influence over 100 other Iraqis.) To exploit this effect, the task force works closely with Iraqi *imams* and others to apply Iraqi cultural operating codes, such as shame and honor and patronage,⁵ to develop programs that further objectives.

Figure 1. Summary of Key TF–134 Programs

- Transition Barracks In: Initially assesses motivation for joining the insurgency, criminal history, religious status, education/job skills
- Religious Discussion Program: Voluntary, but used to determine extent of religion in detainees’ lives and to develop a moderate view of Islam
- Dar al-Hikmah (Basic Education): Chance to get a minimum 5th-grade education
- Vocational Education: Job skills training
- Work Program: Compensated for voluntary work activities (for example, sewing center, mud brick facility, working parties)
- Individual Assessments: Occurs before their Multi-National Force Review Committee hearing to consider mental health, religious ideology, education, work program performance, guard force input
- Family Advocacy and Outreach: Includes family in the rehabilitation process and grants greater access based on progress
- Lion’s Spirit: Continuing moderate religious education and training for those desiring to become an *imam*
- Transition Barracks Out: May spend up to a week in this program that includes courses on civics, public health, and reintegration into Iraqi society and with the family

Source: MNF–I TF–300 Theater Internment Facility Regional Center, brief, n.d.



ADM Mullen views Camp Bucca detention center from observation tower

DOD (Chad J. McNeeley)

Family Advocacy. Capitalizing on the closest of Iraqi societal bonds, family advocacy offers visitation as a privilege to detainees who follow facility rules. Closer family interaction for cooperative detainees provides greater moral support and involves families in their transformation and reintegration efforts. This program consists of frequent on-site visitation—on average, about 300 families visit detention facilities each day, and this number is steadily increasing.⁶

Pledge and Guarantor Program.

Having detainees sign a pledge prior to release is another new practice. Some with troubled backgrounds must also secure a guarantor, often a tribal leader, to assume responsibility for their post-release conduct. Iraqi judges formally administer this pledge, and violators of its provisions can be charged in Iraqi courts. Pledges are frequently part of TF-134 release ceremonies, under its Lion's Dawn program, in which Iraqi leaders recognize detainee achievements and reinforce the significance of being given a new start.⁷ These actions, leveraging Iraqis' sense of honor and patronage, are also aimed at curbing recidivism.

Multilayered Release Policies. Multi-National Force Review Committee (MNFRC) boards are the cornerstone of a paradigm shift away from warehousing detainees and generic release policies to a multilayered risk assessment for each detainee. To achieve the goal of releasing only those detainees assessed as very low risk, these boards, manned by military members from in-theater headquarters and

operational units, recommend release based on whether a detainee poses a security risk. In making these determinations, boards conduct face-to-face interviews with detainees and review evidence from internment facility guards, counselors, teachers, and evaluations, along with that from arresting units and other sources. MNFRC boards and other TF-134 processes align with the local Islamic custom of conducting communal, nonjudicial hearings for accused persons to air grievances and publicly present evidence.

TF-134 saw detainees' potential influence over friends and tribal members outside the camps as a way to extend the positive effects of its program to the Iraqi population. This thinking produced a more aggressive policy, with an expanded goal of "establish[ing] an alliance with and empower[ing] moderate Iraqis to effectively marginalize the violent extremists."⁸ This policy promotes political reconciliation by extending positive moderate influences to more Iraqis with the aim of reducing support for insurgents and bolstering the government of Iraq.

In fall 2007, as Iraqi politicians renewed their call to grant amnesty to selected detainees, TF-134 proposed even more sweeping expansions.⁹ If United Nations authority for U.S. detention of Iraqis was not renewed at the end of 2008, there could be a mass turnover of tens of thousands of U.S.-held detainees—potentially overwhelming Iraq's prison capacity and creating another problem for the Iraqi government. As a less risky alternative,

TF-134 proposed increasing the number of moderate CF detainees released in the interim, while still stressing a general policy of *no* general mass releases and *no* release of any high-risk, irreconcilable detainee.

The proposal met strong opposition from some commanders, who were convinced Iraqis would feign moderation and resume attacking CF troops as soon as they were released. With deeply divided opinions and pressed to inform the commanding general's decision, the MNF-I staff called for a formal look to sort through all the issues. The impact on political reconciliation and insurgent ranks had to be assessed in only a few weeks.

Assessing Risks and Benefits

The assessment began by looking at how well the TF-134 approach to handling detainees aligned with the overall joint campaign plan for Iraq. COIN doctrine and literature agree that it is essential to drive a "wedge" between the hardened insurgent cadre and those less committed or motivated to support the insurgency.¹⁰ TF-134 seeks to do this inside the camps. But the dramatic change in policy entails two other distinctive facets: leveraging detainees' influence over Iraqis outside the detention camps, and using the expanded release policy as a wedge to influence political dynamics. While both support COIN tenets of reducing insurgent forces and bolstering the government, implementing them is a bold and complicated step into uncharted territory.



Navy Judge Advocate General meets with Task Force 134 attorneys and paralegals at Camp Victory, Iraq

U.S. Army (Jason Adolphson)

the key question is whether insurgents get more recruits either from detainees who were released or from other Iraqis who join because of resentment over the detainee alienation effect

The key question is whether insurgents get more recruits either from detainees who were released or from other Iraqis who join because of resentment over the detainee alienation effect (see figure 2). A recent *Joint Force Quarterly* article on detaining Iraqis noted that "many examples of arrests and internment [are creating] more insurgents than the arrests neutralize."¹¹ For Iraqi perspectives on the likely impacts, the study used in-theater Iraqi-American cultural advisors and native

Iraqis living in Baghdad who work for the United States.¹² The assessment used official MNF-I insurgent troop strength estimates, historical recidivism data, focus groups, and nationwide polls, as well as special surveys, working groups, and other subject matter expert inputs.¹³ This research helped establish a plausible range of release rates, recidivism rates, and detainee alienation effects.

Rough estimates based on analyzing a number of cases with varying combinations of release, recidivism, and detainee alienation effect rates show that detainee alienation has the greater impact on insurgent force levels. In most cases examined, the number of released detainees who return to the insurgency is *less than* the number of insurgents created due to detainee alienation, even where there are high numbers of released detainees. Thus, the benefits from lower detainee alienation offset the risks of released detainees rejoining the insurgency—producing lower overall insurgent force levels. In addition, lower recidivism increases the probability and scope of these positive impacts. These results are consistent with other COIN studies and are reinforced by new COIN doctrine.¹⁴

To consider broader political, security, and other impacts, the analysis team adapted a method that visually framed key decision criteria (see figure 3).¹⁵ This flexible, multicriteria decision support approach allowed dynamic weighting of rating factors.¹⁶ Starting from a pre-change-of-policy base case and incrementally adding more detainee engagement steps and an aggressive information campaign plan (ICP) yielded positive results. The ICP included

a range of actions to take advantage of detainee releases, including their return to localities and followup stories. A worst-case assumption was tested—reversing weightings for security and political criteria. The results still showed accelerated release as the best option for achieving joint campaign plan objectives.

These analyses pointed to an aggressive ICP and low recidivism as particularly important to achieving campaign goals. Lower recidivism seems dependent on training and education programs in detention facilities as well as effective reintegration of releasees back into society, including securing a job or job training, an education, and so forth. New policies being implemented, which might free at least half of the 23,000 detainees currently held, seem to be producing lower recidivism rates. In the months since the program's implementation, recidivism rates are less than 1 percent, substantially below historical rates of 6 to 9 percent.¹⁷ The rate of change suggests recidivism will probably not return to previous higher levels, but more time (up to 18 months) is needed to see if these rates will hold. Interestingly, these factors indicate that while TF-134 efforts are vital, ultimate results may well depend on how other MNF-I subelements follow through on and synchronize the broader ICP and releasee reintegration implementation aspects.

Senior Reaction Results

General Petraeus approved the TF-134 moderation and early release program with the addition of a strong ICP to maximize political reconciliation benefits in December

2007, declaring the authors' assessment "very useful" and matching his own impressions. With the decision made, controversy over accelerated detainee release policy persists, with early results still inconclusive. The new TF-134 view that detainees not only can be moderated, but also can become a force for spreading moderate beliefs across Iraqi society, still faces opposition from some who believe it is best to keep detainees locked up as long as possible. Some commanders report opposition to detainee releases from locals who characterize detainees as criminals or fear their return to the insurgency. While some of those concerns are no doubt legitimate, they sometimes mask another problem. It is not uncommon for someone to steal another's home or property and provide bogus information to authorities, spurring a false arrest and detention. Fear of revenge therefore motivates some of the release program's most ardent opponents.

some commanders report opposition to detainee releases from locals who characterize detainees as criminals or fear their return to the insurgency

The program is still experiencing growing pains, partly because no single entity has end-to-end responsibility for implementation or the result. As of August 2008, release rates were still lower than TF-134 initially proposed. ICP efforts to help spread the news of faster release and assist in transmitting moderate messages have only partially been developed. Local reintegration efforts, critical to curbing recidivism, are also fragmented. Some early disparities are to be expected, especially in a dynamic and uneven security environment. Despite the challenges, progress is being made to set up effectively coordi-

Figure 2. Insurgent Recruitment and Growth Model



Figure 3. MNF-I Assessment Detainee Policies and Priorities Scorecard

Defeating Anti-Iraqi Forces (AIF) 3						Political Reconciliation 5						Implementation feasibility 1	Implementation costs 1
Reduce # AIF 5			Free up Coalition Force assets 3		Interrogation/Intelligence 1 (does not include possible improved post-release intelligence)	Iraqi turnover impact 1	Detainee enlightenment 1		GOI Support 3		Other SCIO Potential 1		
Detaining AIF 1	Recapture recidivism 1	Not provoking new AIF (Detainee Alienation Effect) 2	Fewer guards 1	Other military assets 1			Willingness to support GOI 1	AIF opposition 1	Fair treatment by GOI–Sunni 1	Fair treatment by GOI–Shia 1			

Key: GOI = Government of Iraq; SCIO = Strategic Communications Information Operations

nated, accelerated detainee evaluation and release processes.

Important successes resulted from working with tribal chiefs outside the formal government and employing Iraqis, many of them former insurgents, as Concerned Local Citizens (also known as Sons of Iraq) to provide security. That sort of boldness opened doors of opportunity. It is still too early to assess whether the TF-134 initiatives will effectively complement the awakening to convince more Iraqis to reject extremist views. By itself, the task force's detention policy changes will not turn the insurgency around, but they do represent a new patch in the larger quilt of counterinsurgency studies. **JFQ**

NOTES

¹ As used here, the term *care and treatment* refers to humane handling of detainees and conduct of detention personnel as established by the Geneva Convention and promulgated by U.S. Government guidance documents. For example, Department of Defense Directive 2310.01E, Enclosure 3, contains the verbatim text of Common Article 3 to the Geneva Convention of 1949. Enclosure 4 contains other requirements of the law of war essential to ensure humane care and treatment of all detainees.

² Ali A. Allawi, *The Occupation of Iraq: Winning the War, Losing the Peace* (New Haven: Yale University Press, 2007), 187.

³ Ibid.

⁴ William S. McCallister, "COIN and Irregular Warfare in a Tribal Society," Applied Knowledge International pamphlet, 2007, 24, available at <<http://smallwarsjournal.com/documents/coinand-iwinatribalsociety.pdf>>; Elizabeth A. Nathan and Kevin M. Woods, "Saddam and the Tribes: How Captured Documents Explain Regime Adaptation to Internal Challenges (1979–2003)," Iraqi Perspective Project Series Phase II, Institute for Defense Analyses, Joint Advanced Warfighting Program Paper P-4263, August 2007, 37.

⁵ McCallister, 14.

⁶ MNF-I TF-300 Theater Internment Facility Regional Center, brief, n.d.

⁷ MNF-I Battle Update Assessment briefing, February 14, 2007, slide 28.

⁸ TF-134 document describing moderation programs and mission.

⁹ Joshua Partlow and Amit R. Paley, "Maliki Renews Call to Give Some Insurgents Amnesty," *The Washington Post*, November 12, 2007, A16.

¹⁰ Besides other experts and sources specifically cited (including U.S. Army Field Manual 3-24, *Counterinsurgency*), this review included many U.S. Army Combined Arms Center Military Review Counterinsurgency Reader sources and other

expert works by David Galula, James S. Corum, Brian Reed, John F. Hussey, and the 1968 RAND Vietnam Hamlet Evaluation System Study.

¹¹ Kyle B. Teamey, "Arresting Insurgency," *Joint Force Quarterly* 47 (4th Quarter, 2007), 117.

¹² Efforts to incorporate Iraqi perspectives include closely interacting with Iraqi-Americans working in Iraq who collect information and maintain a dialogue with a large network of Iraqis across the country and interacting with other Iraqis living in Baghdad and working in the International Zone for MNF-I open-source intelligence as media translators.

¹³ Due to current instabilities in Iraq, coalition force (CF) recidivism is generally reported in terms of a person, detained in a theater internment facility as a threat to security, who is released and again becomes an insurgent. The main way of measuring recidivism is when recaptured detainees' identifying numbers are reactivated when they pass through the magistrate's cell at Camp Cropper. Detainee recidivists who are killed or those detained by Iraqi Security Forces whose identity is confirmed by biometric data from previous CF detention are also included in this measurement when the information is made available.

¹⁴ Field Manual 3-24, *Counterinsurgency* (Washington, DC: Headquarters, Department of the Army, December 2006), table 1-1.

¹⁵ U.S. Army Training and Doctrine Command draft pamphlet 525-FW-X, version 3.0, *Commander's Appreciation and Campaign Design*, is new doctrine (drawing systemic operational design and effects-based operations) that calls for better framing of the problem and conceptual approach by senior commanders.

¹⁶ Campaign Assessment Methodology (CAM), developed by the authors for MNF-I, rates how selected factors affect Iraqi views and support for the government of Iraq by using campaign level objectives as criteria to weigh the desirability of actions based on how each promotes "tipping" Iraqis toward the government. Adapting it into a multicriteria decision support system (DSS) made it easier to reapply public opinion and "atmospherics" data from CAM into the Iraqi detention DSS situation. Both CAM and DSS use RAND's DynaRank multicriteria DSS. See Richard Hillestad and Paul K. Davis, *Resource Allocation for the New Defense Strategy: The DynaRank Decision Support System* (Santa Monica, CA: RAND, 1998).

¹⁷ Yochi J. Dreazen, "U.S. Begins Freeing Thousands of Captives in Iraq: Detention Policies Have Been Source of Public Anger," *The Wall Street Journal*, April 18, 2008, 3.

U.S. Army War College

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The war on terror was clearly not contemplated when the four Geneva Conventions, addressing wars between national entities, were signed in 1949.¹ The violence in Iraq currently perpetrated by al Qaeda and dissident elements of the former regime is being spearheaded by individuals under no known national authority, with no command structure that enforces the laws and customs of warfare, with no recognizable, distinguishing military insignia, and who do not carry arms openly. More importantly, they represent no identifiable national minority in Iraq, but rather largely draw their support from sponsors outside Iraq. Their attacks have injured and killed civilians of all ethnic groups, as well as more than 3,740 U.S. military personnel attempting to help the fledgling, democratic government in Baghdad to succeed. The terrorists' use of young people and women as human couriers for explosive

U.S. Army (Kieran Cuddihy)



Soldier guards suspected insurgents detained during patrol, Mosul, Iraq

“Operationalizing” Legal Requirements for Unconventional Warfare

By JAMES P. TERRY

devices is reminiscent of our experience in Vietnam and raises serious questions about the status of those individuals when they are acting on behalf of terrorist elements in Iraq.² The lack of legal status of the terrorists and their surrogates as other than common criminals is seldom, if ever, acknowledged publicly by unbiased news services, and this raises serious concerns for the military in their efforts to assure the public of their adherence to the law of war.

The U.S. military participation on the ground in Iraq is dictated by approved rules of engagement (ROEs), which are a direct reflection of the law of war in its application to this specific conflict. This article addresses the legal considerations that must be part of our thinking when developing the ROEs that will both protect those lawful participants (U.S., coalition, and Iraqi) in the conflict and those who are innocent civilians, while denying any but required minimal legal protections accorded common criminals for the unlawful belligerents represented by al Qaeda and their outside sponsors.

Legal Status

It is important to understand that terrorist violence provides no legal gloss for its perpetrators. The critical international law principles applicable to the violence in Iraq are found in the 1949 Geneva Conventions in Common Article 3 relating to internal armed conflicts and the principles enunciated in the two Additional Protocols to these conventions negotiated in 1977.³ The minimal protections afforded by Common Article 3, for example, include prohibitions on inhumane treatment of noncombatants, including members of the armed forces who have laid down their arms. Specifically forbidden are “murder of all kinds, mutilation, cruel treatment and torture; taking of hostages; outrages upon personal dignity, in particular, humiliating and degrading treatment,” and extrajudicial executions. Provision must also be made for collecting and caring for the sick and wounded.

The 1977 Geneva Protocols had their roots in the wars of national liberation following World War II. Colonial powers, to include the United States, Great Britain, and the Netherlands, had engaged these liberation movements militarily, often with little regard for the law of armed conflict. In the 1974 conference hosted by the Swiss government in Geneva, the need to address conflicts of a noninternational character was addressed in Article 96, paragraph 3, of Protocol I and in Protocol II. At the conference, the Swiss government invited members of national liberation organizations to participate, but not vote.

The participation of nonstate actors helped shape the drafting of Article 96, paragraph 3, of Protocol I. This section provides that a party to a conflict against a state army can unilaterally declare that it wants the 1949 Geneva Conventions and the 1977 Protocols to apply. This would offer, of course, greater protection for members of national liberation movements.

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Under Article 96, however, parties authorized to make such a declaration had to establish that they were involved in “armed conflicts in which people are fighting against colonial domination and alien occupation and against racist regimes in the exercise of their right of self-determination.”⁴ In Iraq, however, terrorists are trying to unseat the government that has been overwhelmingly approved by the people. Moreover, al Qaeda has made no statement that it desires the Geneva Conventions to apply in Iraq.

These terrorists, or unlawful combatants, however described, have no juridical existence other than as common criminals. Protocol I, Article I conflicts, or those between a nation and a recognized insurgency seeking a legal status, differ from the present terrorist violence in that participants in Article I conflicts opposing government forces are required to meet certain minimum requirements. The participants must:

- operate under responsible command and are subject to internal military discipline
- carry their arms openly
- otherwise distinguish themselves clearly from the civilian population.⁵

In return, they are accorded certain protections when captured. Those perpetuating violence in Iraq today do not meet these criteria, and they are viciously exploiting every ethnic group for their own ends, without regard for these requirements.

Terrorism and International Law

The basic provision restricting the threat or use of force in the Middle East and Southwest Asia, including restrictions on support for terrorist violence, is Article 2, paragraph 4, of the United Nations (UN) Charter. That provision states, “All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any manner inconsistent with the Purposes of the United Nations.”⁶

The underlying purpose of Article 2, paragraph 4—to regulate aggressive behavior in international relations—is identical to that of its precursor in the Covenant of the League of Nations. Article 12 of the covenant stated that league members were obligated not “to resort to war.”⁷ This terminology, however, did not mention hostilities that, although violent, could not be considered war. The drafters of the UN Charter wished to ensure that the legal characterization of a conflict’s status did not preclude

cognizance by the international body. Thus, in drafting Article 2, paragraph 4, the term *war* was replaced by the phrase *threat or use of force*. The wording was interpreted as prohibiting a broad range of hostile activities including not only “war” and equally destructive conflicts, but also applications of force of a lesser intensity or magnitude such as those observed in Iraq today.⁸

The UN General Assembly has clarified the scope of Article 2 in two important resolutions, adopted unanimously.⁹ Resolution 2625, the Declaration on Friendly Relations, describes behavior that constitutes the unlawful “threat or use of force” and enumerates standards of conduct by which states and their surrogates must abide. Contravention of any of these standards of conduct is declared to be in violation of Article 2, paragraph 4.¹⁰

Resolution 3314, the Definition of Aggression, provided a detailed statement on the meaning of *aggression*, defining it as “the use of armed force by a state against the

aggression through surrogates violates international law as embodied in the UN Charter.”¹²

The actions of states supporting terrorist activities, such as Iran and Syria, when interpreted in light of these resolutions, clearly fall within the scope of Article 2, paragraph 4. The illegality of aid to terrorist groups has been well established by the UN General Assembly. Both resolutions specifically prohibit the “organizing,” “assisting,” or “financing” of “armed bands” or “terrorists” for the purpose of aggression against another state.

With respect to the terrorists themselves, they seek on the one hand to achieve ad hoc protected status by blending in with the civilian populace, while on the other hand violating the law of war in terms of those they target (civilians and other noncombatants). In wars involving nation-states, all lawful combatants can be targeted (to include those sleeping, unarmed, and so forth) until or unless they achieve Protected Status as prisoners of war (POWs)

in Iraq, terrorists are trying to unseat the government that has been overwhelmingly approved by the people

sovereignty, territorial integrity, or political independence of another state, or in any manner inconsistent with the Charter of the United Nations.”¹¹ This resolution contains a list of acts that, regardless of a declaration of war, qualify as acts of aggression. The resolution provides that a state committing an act of

or are sick or wounded under the Geneva Conventions. Similarly, lawful belligerents have immunity under the criminal law for warlike acts that do not violate the law of war. Terrorists, on the other hand, want it both ways. They seek the protection of civilians until they attack, then seek to be treated as combatants with all

U.S. Army (Sarah De Boese)



Iraqi woman shows picture of relative killed by terrorists

the protections of POWs when captured. Fortunately, the recent Jose Padilla case and others are carefully differentiating terrorists' status as unlawful combatants based on their actions.

Law of Self-Defense

Historically, rules on the lawful use of force have developed within a framework of state-to-state relationships. Little doubt exists, however, concerning their applicability in the terrorist arena where actors are surrogates or agents of state sponsors. The Long Commission, for example, in commenting on the devastating 1983 terrorist attack on the U.S. Marine Headquarters in Beirut, concluded:

[S]tate sponsored terrorism is an important part of the spectrum of warfare and . . . adequate response to this increasing threat requires an active national policy which seeks to deter attack or reduce its effectiveness. The Commission further concludes that this policy needs to be supported by political and diplomatic actions and by a wide range of timely military response capabilities.¹³

When the UN Charter was drafted in 1945, the right of self-defense was the only

included exception to the prohibition of the use of force. Customary international law had previously accepted reprisal, retaliation, and retribution as legitimate responses as well. *Reprisal* allows a state to commit an act that is otherwise illegal to counter the illegal act of another state or its surrogate. *Retaliation* is the infliction upon the delinquent state of the same injury that it or its surrogate has caused the victim. *Retribution* is a criminal law concept, implying vengeance, which is sometimes used loosely in the international law context as a synonym for retaliation. While debate continues as to the present status of these responses with respect

terrorists seek the protection of civilians until they attack, then seek to be treated as combatants with all the protections of POWs when captured

to terrorist violence, the American position has always been that actions protective of U.S. and Iraqi interests, rather than punitive in nature, offer the greatest hope for securing a lasting, peaceful resolution of the crisis in Iraq.¹⁴

The right of self-defense was codified in Article 51 of the charter. That article provides that "Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations."¹⁵ The use of the word *inherent* in the text of Article 51 suggests that self-defense is broader than the immediate charter parameters. During the drafting of the Kellogg-Briand Treaty in 1928, for example, the United States expressed its views thus:

There is nothing in the American draft of an anti-war treaty which restricts or impairs in any way the right of self-defense. That right is inherent in every sovereign state and is implicit in every treaty. Every nation is free at all times and regardless of treaty provisions to defend its territory from attack or invasion and it alone is competent to decide whether circumstances require recourse to war in self-defense.¹⁶

Because self-defense is an inherent right, its contours have been shaped by custom and are subject to customary interpretation. Although the drafters of Article 51 may not have anticipated its use in protecting states

from the effects of terrorist violence, international law has long recognized the need for flexible application. Former Secretary of State George Shultz emphasized this point when he stated, "The U.N. Charter is not a suicide pact. The law is a weapon on our side and it is up to us to use it to its maximum extent. . . . There should be no confusion about the status of nations that sponsor terrorism."¹⁷ The final clause of Article 2, paragraph 4, of the charter supports this interpretation and forbids the threat or use of force "in any manner inconsistent with the Purposes of the United Nations."¹⁸

Myres McDougal of Yale University placed the relationship between Article 2, paragraph 4, and Article 51 in clearer perspective:

Article 2(4) refers to both the threat and the use of force and commits the Members to refrain from the "threat or use of force against the territorial integrity or political independence of any state, or in any manner inconsistent with the Purposes of the United Nations;" the customary right of self-defense, as limited by the requirements of necessity and proportionality, can scarcely be regarded as inconsistent with the purpose of the United Nations, and a decent respect for balance and effectiveness would suggest that a conception of impermissible coercion, which includes threats of force, should be countered with an equally comprehensive and adequate conception of permissible or defensive coercion.¹⁹

Significant in Professor McDougal's interpretation is the recognition of the right to counter the imminent threat of unlawful coercion as well as an actual attack. This comprehensive conception of permissible or defensive coercion, honoring appropriate response to threats of an imminent nature, is merely reflective of the customary international law. It is precisely this anticipatory element of lawful self-defense that is critical to an effective policy to counter terrorist violence in Iraq.

Presidential Initiatives

Early in 1984, President Ronald Reagan issued the seminal modern "preemption" doctrine addressing legal response to terrorist violence. President Reagan's National Security Decision Directive (NSDD) 138, issued April 3, 1984, "represent[ed] a quantum leap in countering terrorism, from the reactive mode to recognition that pro-active steps [were] needed."²⁰ Although NSDD 138 remains classified to this day, National Security Advisor Robert McFarlane suggested at the Defense



Young Sudanese Liberation Army combatants do not conform to Geneva Convention uniform and insignia rules

Strategy Forum on March 25, 1985, that it includes the following key elements:

*The practice of terrorism under all circumstances is a threat to the national security of the United States; the practice of international terrorism must be resisted by all legal means; the United States has the responsibility to take protective measures whenever there is evidence that terrorism is about to be committed; and the threat of terrorism constitutes a form of aggression and justifies acts in self-defense.*²¹

Similarly, in 1998, the Clinton administration determined that the existing legal framework was inadequate to deal with threats of terrorism to critical infrastructure. On May 22, 1998, the President signed Presidential Decision Directives (PDD) 62 and 63 in implementation of his new counterterrorism policy framework. PDD 62, *Combating Terrorism*, was the successor to NSDD 138, which determined that the threat of terrorism constitutes a form of aggression and justifies acts in self-defense.²² PDD 62 was more expansive in its coverage than NSDD 138 and addressed a broad range of unconventional threats, to include attacks on critical infrastructure, terrorist acts, and the threat of the use of weapons of mass destruction. The aim of the directive was to establish a more pragmatic and systems-based approach to protection of critical infrastructure and counterterrorism, with preparedness being the key to effective consequence management. PDD 62 created the position of National Coordinator for Security, Infrastructure Protection and Counterterrorism, which would coordinate program management through the Office of the National Security Advisor.

PDD 63, *Critical Infrastructure Protection*, mandated that the National Coordinator established by PDD 62 initiate immediate action between the public and private sectors to assure the continuity and viability of our political infrastructures. The goal established within PDD 63 was to significantly increase security for government systems and a reliable interconnected and secure information system.

To counter the worldwide al Qaeda threat, President George W. Bush implemented the proactive policies in 2002 later incorporated in the critically important 2006 National Security Strategy. When President Bush released the National Security Strategy for his second term on March 16, 2006, his administration continued the emphasis on preemption articulated in his 2003 speech at West Point

and included the points made earlier in the National Security Strategy announced for his first term in 2002.

The language in the 2006 version clearly relates the doctrine to events in Iraq and other areas currently experiencing terrorist violence. For example, one section is entitled “Prevent attacks by terrorist networks before they occur.”²³ In another section, the text claims, “We are committed to keeping the world’s most dangerous weapons out of the hands of the world’s most dangerous people.”²⁴ A further section states, “We do not rule out the use of force before attack occurs, even if uncertainty remains as to the time and place of the enemy’s attack.”²⁵ The Doctrine of Preemption, or Anticipatory Self-Defense as it is otherwise known, was clarified in terms of its use by the Bush administration, just as it had been by the Reagan Presidency, which was the first to formally adopt this venerable legal principle as an administration policy.

These policies required that we make the fullest use of all the weapons in our arsenal. These include not only those defensive and protective measures that reduce U.S. systems vulnerability, but also new legal tools and agreements on international sanctions, as well as the collaboration of other concerned governments. We should use our military power only as a last resort and where lesser means are not available, such as in those instances where the use of force is the only way to eliminate the threat to critical civil or military infrastructure. The response to al Qaeda poses such a requirement.

Full implementation of the Bush National Security Strategy, as in that articulated by President Reagan, should lead to increased planning for protective and defensive measures to address this challenge to our national security, and where deterrence fails, to respond in a manner that eliminates the threat—rather than, as prior to the articulation of NSDD 138 by President Reagan, treating each incident after the fact as a singular crisis provoked by international criminals. By treating terrorists and others attempting to destroy our critical infrastructure as participants in international coercion where clear linkage can be tied to a state actor or its surrogates, the right of self-defense against their sponsor is triggered, and responding coercion (political, economic, or military) may be the only proportional response to the threat.

This proactive strategy to the threat posed by attacks on our critical national security interests embraces the use of legal,

protective, defensive, nonmilitary, and military measures. The Bush Doctrine attempts, as did the Reagan initiative, to define acts designed to destabilize our national interests in terms of “aggression,” with the concomitant right of self-defense available as a lawful and effective response. The use of international law, and more specifically, the Law of Armed Conflict, has not only complemented the prior criminal law approach, but also should give pause to those who would target vital U.S. and allied interests in the future.

the Bush Doctrine attempts to define acts designed to destabilize our national interests in terms of “aggression,” with the concomitant right of self-defense available as a lawful response

ROEs in the Terrorist Environment

Operational planning, while classified for each military operation, provides the legal and operational roadmap for our military’s response to an attack by terrorists and/or their surrogates. The operational planning cycle in each of our unified commands first addresses legal and international considerations. That is, the operational planners must consider whether:

- the operation is UN-sanctioned
- it has been approved by the relevant regional organization
- a strong legal rationale can be articulated publicly
- there is allied political support
- the operation can be justified under the customary international law principles of necessity and proportionality.

Geography is also a critical element of an operation’s development, with topography, avenues of approach, delimiting mountain ranges and rivers, and legally prohibited and politically sensitive areas accounted for (for example, dams, dikes, powerplants, and so forth). The civilian populace must be addressed in terms of location, involvement, and commitment to the opposing forces. The selection of weapons systems is dictated by the capability of the opposing force and the force’s size and makeup, as well as the political impact the use of certain weapons may have on nations supporting the terrorist force. In this regard,

we must consider the use of available special weapons, laser-guided munitions, and conventional weapons. Targeting considerations are a key element in operational planning, with authorized military targets, targets requiring prior approval, high-value targets, economic targets, and intelligence-related targets.

In addition, operational considerations include tactical concerns, intelligence matters, and opposing force information. As an example, planners must address choice and mix of forces, allied participation, aviation/ground relationships and deconfliction, weapons restrictions for political reasons, availability of lift, fuel, food, ammunition concerns, and resupply planning. Tactical considerations include determining whether the ingress will involve clandestine or open entry, force sizing, access to critical targets, transportation requirements, time constraints, and weapons selection. Intelligence considerations address overhead requirements and capabilities, available human intelligence assets, ability to monitor enemy communications, security of friendly communications, and ability to neutralize enemy computer systems. Opposing force considerations include size, capability, support of populace, available weaponry, delivery capability,

guidance for handling crisis responses to terrorist violence and other threats is provided, through the Joint Chiefs of Staff (JCS), to deployed forces during armed conflict.

ROEs reflect domestic law requirements and U.S. commitments to international law. They are impacted by political and operational considerations. J. Ashley Roach has noted that ROEs "should never substitute for a strategy governing the use of deployed forces, in a peacetime crisis or in wartime."²⁶ For the military commander concerned with responding to a terrorist threat, ROEs represent limitations or upper bounds on the disposition of forces and the designation of weapons systems, without diminishing the commander's authority to effectively protect his own forces from attack.

Terrorist violence against U.S. and allied forces in Iraq and Afghanistan represents hostile acts that trigger applicable standing ROEs. The first standing rules applicable worldwide were promulgated in 1980, as a result of a commander, U.S. Pacific Command, initiative under Admiral Robert Long, and were denominated the "JCS Peacetime ROEs for U.S. Seaborne Forces."²⁷ These rules, which served as the bases for all commands' subsequent standing ROEs, were designed exclusively for the

tion, and is designed to limit the scope and intensity of the conflict, discourage escalation, and achieve political and military objectives. The inherent right of self-defense, as in prior national ROEs, establishes the policy framework for the SROE. These SROEs—which remain in effect, although with certain amendments to accommodate specific new threats—are intended to provide general guidelines on self-defense and are applicable worldwide to all echelons of command, and provide guidance governing the use of force consistent with mission accomplishment. They are to be used in operations representing the spectrum of conflict—that is, operations other than war, during transition from peacetime to armed conflict or war, and during armed conflict, to include response to terrorist violence—in the absence of superseding guidance.³⁰

The expanded national guidance represented in the SROEs has greatly assisted in providing both clarity and flexibility for our combatant commanders. The approval of amendments by the Secretary of Defense and promulgation by the Chairman of the Joint Chiefs of Staff have ensured consistency in the way all military commanders, wherever assigned, address unconventional threats such as those posed by terrorist elements in Iraq, supported clandestinely by regional adversaries.

the use of force directed by President Reagan in 1986 was preceded by conclusive evidence of Libyan responsibility for other acts of terrorism against the United States, with clear evidence that more were planned

communications, will and training, intelligence capability, aviation assets, artillery, hardened transportation capability, communications jamming capacity, logistics, and weapons of mass destruction. Finally, every planning evolution addresses an exit strategy.

ROEs, a subset of the planning process, effectively operationalize the national security directives executed by our recent Presidents within the parameters of international law for each military campaign. The customary international law requirements of necessity of military action and proportionality in response to enemy attack are given operational significance in the terrorist scenario through ROEs, which, in simplest terms, are directives that a government has established to define the circumstances and limitations under which its forces will initiate and continue engagement with terrorist forces. In the U.S. context, this ensures that the President and Secretary of Defense's

maritime environment. More comprehensive national ROEs for land, sea, and air operations were promulgated by Secretary of Defense Caspar Weinberger in June 1986.²⁸

The 1986 ROEs were designated the "JCS Peacetime ROEs for U.S. Forces." These provided the on-scene commander with the flexibility to respond to the hostile intent of terrorists with minimum necessary force and to limit the scope and intensity of the terrorist threat. The strategy underlying the 1986 rules sought to terminate violence quickly and decisively, and on terms favorable to the United States.

In October 1, 1994, President Clinton's first Secretary of Defense, Les Aspin, approved the Standing Rules of Engagement (SROEs) for U.S. Forces, which significantly broadened the scope of our national ROEs.²⁹ As established in the SROEs, U.S. policy, should deterrence fail, provides flexibility to respond to crises with options that are proportional to the provoca-

Observations and Conclusions

The United States was jolted into an awareness of the changing character of aggression when its Embassy in Tehran was seized on November 4, 1979, by Iranian militants who enjoyed the support of Ayatollah Ruhollah Khomeini's revolutionary government. The 1983 terrorist attack on the Marine battalion on the green line at the Beirut International Airport was followed in March 1986 by the bombing of a discotheque by Libyan terrorists acting on Muammar Qadhafi's orders in Berlin. The United States responded to the Libyan attack by launching defensive strikes on military targets in Tripoli and Benghazi. The use of force directed by President Reagan in 1986 was preceded by conclusive evidence of Libyan responsibility for other acts of terrorism against the United States, with clear evidence that more were planned.

In August 1998, al Qaeda terrorists bombed the U.S. Embassies in Nairobi and Dar es Salaam, with significant loss of life. This was followed in October 2000 with a terrorist attack on the USS *Cole* in Yemeni waters. Finally, in September 2001, al Qaeda began a campaign

against the United States with attacks in New York and Washington, DC, with spillover in Afghanistan and Iraq.

An examination of authorized responses to terrorist violence requires an understanding that terrorism is a strategy that does not adhere to any of the military or legal norms reflected in the Geneva Conventions of 1929 and 1949 or The Hague Conventions of 1899 and 1907. In fact, the fundamental characteristic of terrorism is reflected in its violation of the principles of discrimination, necessity, and proportionality. The only norm for terrorist violence is effectiveness. While traditional international law requires clear discrimination among those affected by an attack and proportion in an attack's intensity, the nature of terrorism is such that success is measured by the extent and duration of destructiveness, with no concern for those affected. In the contemporary language of defense economics, terrorists wage counter-value rather than counterforce warfare.

A clear understanding of the terrorist mindset is important because the only credible response to terrorism is deterrence. There must be, as in the case of our response against al Qaeda in Afghanistan, and currently with the surge in Baghdad, an assured, effective response that imposes unacceptable costs on perpetrators and those who make their activities possible. For domestic intruders such as Jose Padilla, criminal law may suffice. For those operating outside the United States, the American reaction must counter the terrorists' strategy within the parameters of international law, and more specifically, the law of armed conflict. Those who suggest otherwise understand neither the inherent flexibility of international law nor the cost of violating that law.

The thrust of the U.S. strategy in response to international terrorism, beginning with President Reagan's articulation of NSDD 138 in April 1984, has been to reclaim the initiative lost while the United States pursued a reactive policy toward unconventional threats such as terrorist violence. With the signing of NSDD 138, followed by President Clinton's issuing of PDD 62, and President Bush's declaration of the Bush Doctrine in the 2002 and 2006 National Security Strategies, preemptive self-defense measures have been authorized through carefully drawn national rules of engagement that ensure that our forces do not absorb the first hit where clear indicators of enemy attack are detected.

The inherent right of self-defense has provided the policy framework for all U.S.

ROEs. Within that framework, the concept of "necessity" in the counterterrorism context has always required that a hostile act occur or that a terrorist unit demonstrate hostile intent. The implementation of national guidance through promulgation of the 1980, 1986, and the current 1994 ROEs, frequently amended since, has greatly assisted in providing both clarity and flexibility of action for our theater commanders. The approval in each instance by the sitting Secretary of Defense has ensured consistency in the way all military commanders, wherever assigned, have addressed terrorist threat situations while providing the mechanism for the automatic amending of ROEs or the issuance of supplemental measures on the occurrence of specified conditions or events. **JFQ**

NOTES

¹ Geneva Conventions of 1949 and 1977. Additional Protocols are reproduced in John N. Moore, Guy B. Roberts, and Robert F. Turner, eds., *National Security Law Documents* (Durham, NC: Carolina Academic Press, 1995).

² All major news outlets reported on February 1, 2008, that two women with mental disabilities were used as bomb couriers in a Baghdad pet market bombing, resulting in significant loss of Iraqi lives.

³ Moore, Roberts, and Turner, Common Article 3, 185.

⁴ See Waldemar Solf and E. Cummings, "A Survey of Penal Sanctions Under Protocol I to the Geneva Conventions of August 12, 1949," *Case Western Reserve Journal of International Law* (Spring 1977), 205.

⁵ Article 1(2) of Protocol I states that "civilians and combatants remain under the protection and authority of the principles of international law derived from established custom, from the principles of humanity and from the dictates of public conscience."

⁶ United Nations (UN) Charter, Article 2, paragraph 4, available at <www.un.org/aboutun/charter/>.

⁷ See League of Nations Covenant, Article 12, available at <www.yale.edu/lawweb/avalon/leagcov.htm#art12>.

⁸ Myres S. McDougal and Florentino P. Feliciano, *Law and Minimum World Public Order* (New Haven: Yale University Press, 1961), 142–143.

⁹ See "Definition of Aggression," G.A. Res. 3314, 29 UN GAOR Supp. (No. 31) at 142, UN Doc. A/9631 (1974); "Declaration on Principles of International Law Concerning Friendly Relations and Cooperation Among States in Accordance with the Charter of the United Nations," G.A. Res. 2625, 25 UN GAOR Supp. (No. 28) at 121, UN Doc. A/8028 (1970) [hereinafter cited as Declaration on Friendly Relations].

¹⁰ "By accepting the respective texts [of the Declaration on Friendly Relations], states have acknowledged that the principles represent their

interpretation of the obligations of the Charter." See Robert Rosenstock, "The Declaration of Principles of International Law Concerning Friendly Relations: A Survey," *American Journal of International Law* 65 (1971), 713, 715.

¹¹ "Definition of Aggression," 142.

¹² A fundamental purpose of the UN Charter is to "maintain international peace and security." See UN Charter, Article 1, paragraph 1. Article 5, paragraph 2, of the Definition of Aggression provides: "A war of aggression is a crime against international peace. Aggression gives rise to international responsibility." See "Definition of Aggression," 144.

¹³ "Report of Department of Defense Commission on Beirut International Airport Terrorist Act of 23 October 1983," 129 (December 20, 1983), reprinted in American Foreign Policy Document 122 (1983), 349.

¹⁴ See, for example, Arthur W. Rovine, "Contemporary Practice of the United States Relating to International Law," *American Journal of International Law* 68 (1974), 720, 736 (statement of then-Acting Secretary of State Dean Rusk).

¹⁵ UN Charter, Article 51.

¹⁶ Marjorie M. Whiteman, *Digest of International Law Volume I* (Washington, DC: U.S. Government Printing Office, 1963), sec. 25, 971–972.

¹⁷ George P. Shultz, "Low Intensity Warfare: The Challenge of Ambiguity," U.S. Department of State Current Policy No. 783, January 1986, 1.

¹⁸ UN Charter, Article 2, paragraph 4.

¹⁹ Myres S. McDougal, "The Soviet-Cuban Quarantine and Self-Defense," *American Journal of International Law* 57 (1963), 697, 600.

²⁰ U.S. Defense official Noel Koch, quoted in "Preemptive Anti-Terrorism Raids Allowed," *The Washington Post*, April 16, 1984, A19.

²¹ Robert C. McFarlane, "Terrorism and the Future of Free Society," speech delivered at the National Strategic Information Center, Defense Strategy Forum, Washington, DC, March 25, 1985.

²² Classified document described by McFarlane. See James P. Terry, "An Appraisal of Lawful Military Response to State-Sponsored Terrorism," *Naval War College Review* (May-June 1986), 58.

²³ *The National Security Strategy of the United States of America* (Washington, DC: The White House, March 16, 2006), 12.

²⁴ *Ibid.*, 19.

²⁵ *Ibid.*, 23.

²⁶ J. Ashley Roach, "Rules of Engagement," *Naval War College Review* (January-February 1983), 46.

²⁷ Joint Chiefs of Staff, "Peacetime Rules of Engagement for U.S. Seaborne Forces" (May 1980).

²⁸ Joint Chiefs of Staff, "Peacetime Rules of Engagement for U.S. Forces" (June 1986).

²⁹ Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3121.01, "Standing Rules of Engagement for U.S. Forces," October 1, 1994, as amended December 22, 1994, and thereafter. The most recent amendment is CJCSI 3121.01B, June 13, 2005.

³⁰ *Ibid.*

RECONSTRUCTING IRAQ'S PROVINCES,

One *by* One

By HENRY L. CLARKE

The Provincial Reconstruction Teams (PRTs) in Iraq have a common purpose: to bring about, within each province, the coalition's overall goals for Iraq—a peaceful, prosperous society, able to sustain and defend its political and economic system without major foreign involvement. The PRTs must enable each provincial and local government to achieve these goals with or without coherent leadership from the center. After years of suspicion and violent conflict among Iraq's three major populations (Kurds, Sunni Arabs, and Shia Arabs), it can be no surprise that a centralized democratic government in Baghdad will often be fractured among the national parties and will not always create the kind of stability, cohesion, and leadership the country needs.

Why should we expect anything different in the provinces? Simply because the provinces *are* all very different, and few mirror Iraq as a whole. Some provinces are composed of a single ethnic/religious group, such as the three provinces of the Kurdistan Regional Government, Anbar Province (overwhelmingly Sunni Arab), and several provinces in the south that are overwhelmingly Shia, with different internal divisions within each group. Other provinces have two main groups in various proportions, and a few, such as Salah ad Din, are divided three

Army Corps of Engineers personnel discuss construction of wastewater treatment facility

U.S. Army (Jim Gordon)



ways and have no single majority. Yet even the most demographically divided provinces have the potential to make local accommodations for specific purposes—for example, to improve infrastructure or services—that remain more difficult to achieve at the national level.

Provincial reconstruction is no longer about *physical* construction, although PRTs have supported a lot of construction. It is about reconstructing Iraqi life in the provinces from Saddam's centralized dictatorship to decentralized governments that people accept as legitimate, from the rule of violence to the rule of law, from ethnic/religious antagonism to accommodation, from government-run business to private sector growth, from rampant corruption to accountability, and so on. It is about fundamental, qualitative change.

Moreover, the diversity among Iraq's provinces is so great, and the opportunities for effective foreign engagement vary so much among the provinces, that PRTs cannot deliver a single set of policies and programs as instructed from Baghdad. Each PRT must draw up province-specific plans, priorities, and levels of resources to achieve its goals. While the general principles of counterinsurgency, economic development, and institutional reform do apply throughout Iraq, they involve policy choices, and each PRT must adapt them to address the unique circumstances prevailing in each province. Efforts to create a single "provincial doctrine" for Iraqi PRTs tend either to be inapplicable to some parts of Iraq or hopelessly vague.¹ Likewise, efforts to contrive a single set of measurements to compare the performance of all the teams can only occasionally be useful because the provinces in which they serve will progress or regress at different rates, and the PRTs' performance will usually not be as decisive as the Iraqi efforts. Moreover, many of the changes we want are not readily measurable.

Provincial diversity and decentralization complicate control and direction by senior Iraqi and American officials preoccupied with the needs of the country as seen from the center, but given the diversity, decentralization offers the best chances for success. Without centralization, PRTs have already

become the main platform for implementing many U.S. programs in Iraq, including those of the U.S. Agency for International Development (USAID) and the rule of law. Without centralization, those PRTs that have established close working relations with Iraqi

than the real goals of qualitative political and economic change in the provinces.

The Special Inspector General for Iraqi Reconstruction (SIGIR) recommended creating a system of goals and benchmarks for the PRTs, and in July 2007 accepted the Embassy's view

our system generates continuous pressure to centralize Provincial Reconstruction Team policies and operations, oversimplify their tasks, and interfere in the most critical contributions to coalition goals

officials have effectively promoted political and economic accommodations and institutional development and have great potential to do more. Unfortunately, despite the diversity, complexity, and decentralization of our own American political system, our system generates continuous pressure to centralize PRT policies and operations, oversimplify their tasks, and interfere in the most critical and creative contributions PRTs are making to coalition goals in Iraq.

How Not to Reconstruct

Aware of Washington's pressure for "metrics" of the results of PRT operations in the provinces, the National Coordination Team (NCT), predecessor of the Office of Provincial Affairs (OPA) at the U.S. Embassy in Baghdad, developed a whole series of "stop-light" objectives for the provinces, and NCT and OPA dutifully briefed the outcomes on a regular basis. The results were too simplistic to prove anything about the effectiveness of the PRTs, and briefing officers would have to describe actual changes in each province separately. The exercise showed mainly what we already knew: the provinces were all different, and any shift from red to yellow, or yellow to green, would take a long and undetermined time.

The danger of requiring quantitative metrics for the performance of PRTs in bringing about qualitative change is that inventive people will produce them, and they will measure the wrong things. Such metrics can avoid qualitative judgments by measuring inputs—dollars spent, hours of training, numbers of Iraqis trained, meetings or conferences held, and so forth, but these data measure effort, not success, and the outcomes can still be failures. The even greater danger is that false indicators quickly become the objectives because they are so much easier to fulfill

that such goals and benchmarks would have to be established and tracked for each team individually.² Yet in October 2007, noting that the recommendation had not been fulfilled, SIGIR recommended that the U.S. Ambassador and Commanding General jointly undertake and approve a "comprehensive plan for the PRTs (including ePRTs [embedded PRTs]), with elements tailored for each," with objectives, performance measures, milestones, funding requirements, and agencies accountable for the plan's implementation.³ SIGIR thus managed to convert individual team planning into a massive top-down bureaucratic effort, involving dozens of military and civilian agencies and untold hours from hundreds of staff officers. Such a comprehensive plan can hardly be flexible enough to help individual PRTs to accomplish their mission and invites micromanagement of the teams, which can only distract the bureaucracy in Baghdad from thinking about strategic issues.

A current congressional study seems based on the unstated, unquestioned, and implausible assumption that knowledge and judgments about how to implement American goals in each province of Iraq (and Afghanistan, too) can best come from higher authorities:

The bottom line . . . is that until PRTs receive consistent and clear direction from higher headquarters, they will not be able to maximize their efforts or judge their success. In this environment, resources cannot be programmed or applied effectively. The heroic tactical work being done by PRTs will go for naught without more coherent strategic and operational level guidance and oversight. In the absence of such guidance and oversight, resources, instead of supporting strategic agility, may be poorly prioritized and coordinated, and, in some cases, squandered.⁴

Retired Ambassador Henry L. Clarke was Head of the Office of Provincial Affairs, U.S. Embassy Baghdad, from May to August 2007.



Coalition forces and PRT members survey canals for future construction of potable water pipelines

U.S. Army (Daniel Herrera)

This is precisely the *wrong* “bottom line.” More lives, time, and billions of dollars have been squandered in Iraq due to poor planning and decisionmaking in Washington, U.S. Central Command, and Baghdad than by anyone dealing with provincial Iraqi counterparts on a daily basis. If one team leader misjudges the best approach for his province, it will not handicap all the other provinces and is much more easily corrected. Yet operational guidance from higher headquarters—which is inappropriate in some or in many provinces—could take months or years to correct. Even someone with extensive field experience cannot sit in Washington, Tampa, or even Baghdad and prescribe how a given program should be prioritized in Ramadi, Irbil, Basra, and Kut better than the teams working in those places; in each locale, the needs and opportunities, and therefore the priorities, will differ. The study overlooks entirely that the PRTs can succeed only through the success of each team’s specific counterparts and that supposedly all-knowing higher authorities must usually rely on PRT reports to assess what counterparts can do.

Planning and Measuring Success

Even though there may be few yardsticks or deadlines applicable to all the PRTs, province-specific yardsticks, benchmarks, and timelines can be useful if they are part of each team’s planning process. Team leaders

must assess what is possible and what might work best in their province, and from that develop a specific plan for PRT operations, including key judgments on timing and priorities for human and other resources. The plan should be coordinated with agencies providing resources and then approved, probably with modifications, at the U.S. Embassy. The team’s progress can then be judged on the basis of its *own* plan. The various plans and their fulfillment can be shared and discussed without judging PRTs against one another.

team leaders must assess what might work best in their province, and from that develop a specific plan for PRT operations

However, skill in planning and progress toward fulfillment of individual PRT plans can also be taken into account privately in individual performance evaluations of the team leaders.⁵

Some specific objectives *can* be similar in all the provinces, if they can be clearly and quantitatively defined and are not greatly affected by geographic differences. For example, provincial budgetary execution was

one of the 2007 congressional benchmarks for Iraq, and it was clearly measurable. The Iraqi constitution provides for the distribution of substantial amounts of Iraqi revenue to all the provinces on the basis of population, and after modest success in 2006, the allocation system was fully functional in 2007. The previous regime had no similar system, so most PRTs were providing provincial authorities with both general and expert advice on developing their budgets and managing these funds. Once the central Ministry of Finance released the funds, PRTs were generally also able to report exact amounts received and spent. Local leaders learned to lobby and reconcile differences on priorities for projects, and provincial authorities became eager to show results. The provinces even committed capital expenditures quite promptly by international standards. While performance was uneven among the provinces, and PRTs had only limited access in some provinces, the political and economic incentives for achievement of good results were comparable among all the provinces. The benchmark was met.

Especially in the field of economic development, there may be other measures of success that provide quantitative indicators—though not necessarily nationwide benchmarks. Numbers of new small businesses formed can show evidence of the business climate, including the removal of obstacles to business. The growth of small-business credit

programs (including repayment rates) can likewise be a measurable indicator. Of course, such numbers will be influenced by differing factors in different provinces—notably the levels of security, corruption, and economic potential.

The most important objectives of the PRTs are neither quantifiable nor easily comparable. In terms of economic work, the most critical path to development in most provinces is likely to require economic reform—that is, a fundamental shift to a decentralized private economy. Iraq's "socialist" command economy remains far behind the progress in economic reform achieved in Eastern Europe, and much of it remains locked into centralized legislation, which is unlikely to change soon. Privatization is badly needed, and some provincial leaders have asked for it, but neither the Iraqis nor the Americans in Baghdad are ready to address the issue. Several PRTs are assisting in the revitalization of state-owned enterprises, to promote employment and production at whatever cost. Ideally, provinces would each conduct their own privatization according to uniform standards and procedures set at the center. Since this is not happening, the PRTs need to look at private sector development creatively, both as a means of replacing defunct state-owned enterprises and to generate attitudes among the provincial leadership to create opportunities to stimulate private rather than public initiatives in commercial development. Economic policy success for a PRT may lie in promoting imaginative local initiatives using provincial resources, which is not a readily measurable process.

Corruption remains a huge obstacle to political and economic development in Iraq, as in most countries. The presence of PRTs, working closely with provincial and local leadership on budgets and projects, often with experienced rule-of-law advisors on the team, cannot prevent corruption and favoritism, but it can help deter them. There is no way to quantify undiscovered illegal activity, or the absence of it, so we will not easily measure how much the PRTs have or will contribute to this aspect of the rule of law. Other rule-of-law developments suffer from the same handicap in measurement (how intimidated does a judge feel?), yet the results of reforms to establish the effective rule of law can be among the most decisive in establishing the capacity of Iraqi provincial governments and courts to become self-sustaining and to be viewed by the population as legitimate.

Political engagement—that is, the influence a team leader or other team members can have on provincial and local leaders—is rarely mentioned as a PRT goal, and the scope for such engagement varies throughout Iraq. Given the breadth of coalition goals, political engagement may be the most important PRT subgoal for the team leader himself. Whether subtle or blunt, persuasion cannot be objectively measured, nor does influence automatically determine success. For example, our team in the Kurdistan region has long under-achieved its potential for political engagement there, in part due to inappropriate staffing and security restrictions imposed by Embassy Baghdad, but there is no way to objectively compare its impact with other teams in other provinces. It can be argued that the potential for overall American impact is greater in that region than elsewhere, but there is no way of measuring what might have been achieved without subjective assumptions about what the Kurdistan Regional Government would or could have changed. The only sensible approach is to use a unique assessment and planning process for the regional team in Iraqi Kurdistan, and also for each of the other PRTs, whether at the provincial or local level, and judge the results qualitatively, province by province.

The critical difference that PRTs bring to our involvement in Iraq is their capacity to help their Iraqi counterparts to implement

the policies, programs, and reforms that we think will strengthen them. The idea that projects and programs can be implemented solely by foreigners was always risky, and the time for that is now long gone. Nothing the PRTs introduce will be sustainable, or will bring about Iraqi self-sufficiency, unless the Iraqis are themselves willing and able to implement the changes. The programs and resources available throughout Iraq are well established now, but only each PRT can decide how best to persuade the counterparts in its

the idea that programs can be implemented solely by foreigners was always risky, and the time for that is now long gone

area to adopt them, what priorities to set, and whether local or provincial offices have the capacity to carry out a given activity if it is turned over to them completely. The effectiveness of a particular program in a province may be affected by whether the governor has a third-grade education or a master's degree, whether he is a Kurd or Arab, and whether a different religious group is dominant in one part of his province. It matters whether the province is intensely agricultural, largely urban, or a desert, and what kinds of activity the level of violence will permit.

U.S. Air Force (Matthew Plew)



Army Corps of Engineers contractor inspects new water treatment plant in Diwaniyah that will serve 10,000 residents

A decentralized concept for organizing and assessing PRTs requires that the team leaders be *real* leaders—able to lead and manage multifaceted teams, yet also effective in advising their Iraqi counterparts. By drawing on relatively senior Foreign Service Officers for the team leader positions, the State Department has been able to provide team leaders with years of experience working with foreign counterparts, and others with years of administrative management experience, but it has not always found team leaders who have strong backgrounds in both negotiating and management, plus the creativity to work out novel solutions in a totally new situation. There is no obvious “career path” to becoming a team leader, yet many senior Foreign Service Officers have done remarkably well. There are surely potential team leaders from other career paths who should be hired, if they can be identified, but since the mix of talent required is not easy to find, it would be a mistake to radically change the recruitment process for Iraq at this late stage.

Team leaders now receive PRT training together with other team members, and that is not sufficient. The leaders should also receive a high-level, 2-week course—comparable to the courses now given to first-time Ambassadors and to Deputy Chiefs of Mission, but with more military, USAID, and rule-of-law input. The course should use case studies of best practices, and of management and policy failures, and should meet with former team leaders. The goal would be to go beyond specific training, to reorienting team leaders to arrive in the field knowing the ways in which they might get useful guidance if they need it. More importantly, they need to understand their personal responsibility for planning their work, leading their team, and for initiative and imagination in implementing established U.S. goals in their area.

Security vs. Working with Counterparts

Security is critical to the success of PRTs in Iraq, and lack of it is often one of their major obstacles. There are two main components: protection of the team's living and office accommodations, and protection of movements by team members to meet with their counterparts. Unlike the military, in which security is a responsibility of command at various levels, the State Department and other civilian agencies in Iraq do not delegate basic decisions on PRT security to team

leaders. State decisions on security are based on a model developed for other countries, which has often worked badly for PRTs in Iraq in both permissive and extremely hostile circumstances.

The worldwide State concept is that foreign host governments are responsible for perimeter security of diplomatic and consular posts, and that if this cannot be guaranteed, the post must be restricted in staffing, evacuated, or closed—a standard clearly opposite to the mission of PRTs in Iraq, where the coalition established and increased the number of PRTs in combat zones, and some teams have come under almost continuous attack. So State persuaded the U.S. military to accommodate most of the PRTs on its bases.

State's Diplomatic Security Service contracts with private companies wherever

move at all into their provinces to meet counterparts, while in the Kurdistan region, where there were no attacks on U.S. personnel, U.S. contractors repeatedly fired on approaching vehicles, causing noncombatant casualties. Ambassador Ryan Crocker and General David Petraeus attempted to deal with some of these longstanding inconsistencies in mid-2007 by shifting more responsibility for PRT movement protection to military units, but in the Kurdistan region and in several provinces in the south there were no available U.S. military units to move the PRTs. Even in Baghdad, an incident in September 2007 received worldwide attention when it illustrated that contractors providing movement security were sometimes too aggressive to be consistent with either the counterinsurgency or broader U.S. goals.

State persuaded the U.S. military to accommodate most of the Provincial Reconstruction Teams on its bases

it must provide movement security. These contracts, originally designed to protect Ambassadors in unsettled countries, place the highest priority on protecting the lives of the passengers. If the threats against a movement are too great, it does not take place. In Iraq, in the event of apparent threats against a movement already under way, the contract guards are free to take aggressive action to deter it without waiting to be attacked. These concepts have not worked well in Iraq: several nonresident PRTs in southern Iraq could not

During 2007, the United States created 14 new PRTs embedded with military brigades in Anbar Province and in and around Baghdad Province (including parts of neighboring provinces), so that both movement and perimeter security depended on the brigade. Although exposed to the same risks as combat troops, these ePRTs brought two huge advantages to the U.S. effort in Iraq: providing greater access to district and other local counterparts, and avoiding the problems of State's security structure.

U.S. Army (Dustin Weidman)



Families return to homes in Abu Ghraib after fleeing from violence several years ago

This embedded structure did not, however, solve the problems of excessive security measures in the Kurdistan region. There are minimum standards for protection against terrorist attack anywhere, but the Embassy seriously curtailed the effectiveness of the regional team by requiring it to move out of the city to the isolated Camp Zaytun. The problem of aggressive driving and shooting by contractors was blamed on their contract and vehicles, although the same State contractor (DynCorp) operated the same vehicles differently in Bosnia, when the threat level resembled that of the Kurdistan region.⁶

In the south, where initially there were insufficient U.S. troops to replace the contractors, a solution reportedly has been found by establishing small U.S. military outposts near Karbala and Najaf that could support the PRTs and their movement security for those influential provinces, and by moving the Qadisiya PRT to Camp Echo, near Diwaniyah.⁷

Withdrawal of Brigades

Creating embedded PRTs at the local level created a new challenge: how to coordinate with the provincial-level teams already functioning, especially in Anbar and Baghdad Provinces. To some Marine and Army commanders, it seemed these new teams should be subordinate to the provincial-level teams, paralleling their military chain of command. I resisted that, arguing that the new teams had their own missions and that they should remain decentralized and focused on their counterparts, while of course coordinating with the provincial level whenever necessary. I did not want to develop another layer in the civilian bureaucracy in Iraq, and I did not want to distract provincial-level team leaders from their responsibility to engage fully with counterparts at the provincial level. The Embassy has reportedly since decided otherwise, so the local, embedded teams now report to the provincial team leaders, sharply reducing the number of team leaders reporting directly to the Embassy. If the provincial leaders decide to manage these embedded local teams, rather than use a decentralized structure, they—and especially the Baghdad PRT—will find it a full-time job. It may become more difficult to recruit experienced officers to lead the subordinate teams. On the other hand, the ePRTs do share the same province with the provincial team, and thus geographic diversity is less of a problem at

their level. Now that the ePRTs have been operating for many months, if the provincial team leaders take advantage of the ePRTs' separate roles and allow the subordinate team leaders to manage their smaller teams, the latter may be able to maintain their effectiveness.

Embedded teams created another, more basic challenge: where does the ePRT go if the brigade moves or returns to the United States? If the primary purpose of the ePRT is to engage Iraqi counterparts, how can a team break off the contacts, programs, and projects they are working on? Brigades and regiments are maneuver elements, very mobile and easily subdivided by smaller units. But Iraqi civilian counterparts are not, and PRTs can and should maintain continuous contact with them. Some PRTs in Iraq were subdivided—in Salah ad Din some team members were accommodated at other bases. Some embedded brigade team members in Baghdad were located with battalion headquarters when this improved their access to their counterparts. Thus, the PRTs are flexible, but there must be a basing and movement plan to maintain their access to counterparts when brigades plan to redeploy to another area or to withdraw altogether. Such plans need to be joint civilian/military efforts by higher authority, with input from PRT leaders.

With the departure of the “surge” brigades of 2007, in which the new PRTs were embedded, some of their forward operating bases used by ePRTs will be employed by fewer troops, closed, or turned over to Iraqi units. Thinning out U.S. combat forces also means fewer military units to move the PRTs around safely. We cannot reasonably declare the civilian mission of an ePRT automatically

if the PRT moves with the brigade, continuity with its counterparts will be lost, and its longer term counterinsurgency and reconstruction goals will remain unfinished

“completed” when the level of violence or other priorities allows its brigade to depart; indeed, the ePRT should be able to accomplish more in a more permissive environment. If the PRT moves with the brigade, continuity with its counterparts will be lost, and its

longer term counterinsurgency and reconstruction goals will remain unfinished, and perhaps unsustainable—or at least seriously interrupted, while new American personnel try to reestablish the relationship. Since team members do not all rotate at once, but are replaced individually, there is no excuse for a break in continuity with counterparts.

Who then takes responsibility for security of the once-embedded PRT? Ideally, some nearby coalition forces do. If they are too thin to provide movement security, that job will probably revert to civilian contractors. For perimeter security, State should consider reliance on Iraqi forces, just as the U.S. military is increasingly doing.

A Longer View

The year 2007 was one of huge growth in the PRT effort in Iraq, with 14 new ePRTs, adding new personnel and skills to the existing provincial-level teams, and then increasing staff for teams south of Baghdad that had not been able to function fully until the security climate became more permissive. Managing all this growth left no time to consider reducing the teams or their functions. The teams were popular with the U.S. Congress (which provided new funding specifically for PRT use), with the military and civilian bureaucracies, and with Iraqi counterparts. The potential of the teams had not been fully explored, and from my perspective at the Embassy it seemed they should try anything reasonable that might serve our overall goals in Iraq.

It is already time to reconsider how much U.S. civilian presence is really needed. There is still a huge job to assist the Iraqis in creating sustainable institutions after such bitter conflicts, but the resources we now expend may not be fully effective or justified. Planning for the future of PRTs requires a few assumptions, such as:

1. The great diversity of Iraqi provinces will remain, so sweeping generalizations about what should be done with the PRTs on a country-wide basis will likely be wrong. Decentralization will remain essential for each team's operations, but that does not relieve higher authorities from oversight, reviewing strategy, and adjusting resources.

2. Apart from temporary setbacks, the more permissive security climate will not get worse in most parts of Iraq. This means that while there will be a continuing threat of terrorist attacks on PRTs and their movements,



U.S. Marine Corps (Joseph A. Lambach)

Embedded PRT members inspect textile factory in al Ikaa

most teams will be able to travel often to meet with counterparts, and they can continue to occupy their living and office quarters. A collapse of security throughout most of the country would require a reassessment of both our civilian and military roles in Iraq, probably including security-driven cutbacks for the PRTs. The present relative peace not only enlarges what our teams can do, but it is also even more important to what the Iraqis can do, together with us and for themselves. To take full advantage of the present environment in our planning, we need to assume that it will continue for most teams.

3. Attacks on unarmed civilians, their automobiles, or Iraqi security forces by armed contractors will be completely unacceptable. The rules of engagement and accountability for poor judgment must be completely revised—or new contractors must be found.

4. As Iraqis become more confident in their own security and capacity to act, they will feel less comfortable with an overbearing U.S. civilian presence. We should therefore reduce nonessential functions and staff wherever we can. Attitudes toward us will not be the same in all provinces; we should trim

PRTs that are least welcome or least able to be effective with their counterparts. We must also be prepared to eliminate those PRT functions that have largely, if not perfectly, achieved their objectives; if they remain useful, they should be transferred to Iraqi institutions. The public diplomacy function of each team will be essential in promoting a favorable image for the PRT, and for gauging realistically how it is perceived by the public and the media.

5. As of mid-2008, it is not plausible to assume that either the Iraqi or the American people will sustain current levels of military forces in Iraq, including the massive logistical system that supports them. Even the most desirable scenario, a gradual withdrawal of combat and some support units, will be a major military undertaking, and there is a risk that small civilian organizations such as PRTs, now dependent on the military, will get lost in the planning shuffle.

6. Since the process of shifting power and responsibility to the provinces is far from complete, and PRT programs remain welcome, teams will most likely remain an important part of the U.S. relationship even if most U.S. military units depart. With

substantially fewer U.S. and British military units, it is reasonable to assume that there will not be enough coalition combat troops to sustain the number of bases now used by PRTs or to provide present levels of movement security, even though such a residual military responsibility would be welcomed by the teams. A combination of Iraqi perimeter security and contractor movement security may be the most workable solution for many teams.

with fewer U.S. and British military units, there will not be enough coalition combat troops to sustain the number of bases now used by PRTs

Based on these assumptions, the Embassy and higher authorities have some immediate and substantial responsibilities for restructuring the PRT program, including its security, throughout Iraq—getting ideas from the individual teams, but without trying to manage ongoing PRT operations. Here are some suggestions to start the process.

1. End new funding and approvals for medium and large construction projects at provincial and local levels. This should not be a big shock; in several provinces, the United States has reduced the number of new construction projects supported by the PRTs and the Army Corps of Engineers. But millions of dollars' worth of new funding was approved in 2007, and completion of the projects will vary from months to years. It is time to stop filling this pipeline with new projects; the PRTs and Corps should focus on winding up existing projects. PRTs have increasingly advised the provinces on Iraqi provincial funding and should continue their expert assistance to provincial budgeting and project management to the extent it is still needed.

2. PRTs will mainly engage politically, promote reform, and deliver various kinds of technical assistance to provincial and local governmental institutions and to the private sector, including agriculture. Teams will continue to need funds they can commit for small-scale projects to support these goals, with minimal higher level interference.

3. Instead of isolating and restricting its functioning, our Kurdistan Regional Reconstruction Team in Camp Zaytun, outside Irbil, should be given new facilities in the city, with secure public access for commercial and consular services, with external perimeter protection supplied by the Kurdistan Regional Government and movement security provided by contractors with new tactical instructions. These measures are long overdue and implementation should begin now. The United States will need an effective presence in the Kurdistan region probably for as long as we have an Embassy in Iraq. Whether or not the team's new facility is given the title of Consulate General, it should function as one, without giving up the team's broad role in technical assistance in developing the economy and rule of law. Since the team has been officially headed by Korea, and the Korean reconstruction projects are largely completed, it might be reasonable to rename the team as a U.S. Consulate General with the departure of the Korean units.

4. Similarly, basing arrangements for other teams should be reviewed jointly (by the Embassy and appropriate military staff) to determine whether the bases and their security are appropriate for a reduced-conflict Iraq. Some PRTs on large military bases, far from their counterparts, have already tried to adjust by dividing the team so key officers are

closer to provincial officials. In cases where there are few alternative routes, the distance to a safe base makes each movement more dangerous. The larger PRTs may require multiple daily movements in a more permissive environment. Fewer troops for movement security could become a significant constraint on PRT effectiveness.

5. Each team should examine the effectiveness of all its programs under way and rank their importance, taking into account overall goals and the realistically expected effectiveness of each program in contributing to them. Those functions that have largely achieved their purpose should be transferred to Iraqi authorities, while others that have proved ineffective should be retired. The U.S. Mission in Baghdad will have to review each team's rankings individually as well as nationwide—but unlike normal budget-cutting exercises, this more careful pruning would produce healthier technical assistance programs and more effective teams.

6. The future status of each PRT should depend on what it does. Although perhaps the least important strategic issue, the question of whether PRTs should evolve into consulates, USAID teams, or Embassy offices has been discussed for years. The answer can only be given for one province at a time, even though the decision must be taken at higher levels. Except for Irbil, where the United States has needed the consular and commercial functions of a Consulate General for years, and the security situation would permit it, the status of "PRT" is understood and would seem sufficient. In Basra, where the British head the PRT and their own Consulate General, and we refer to our part of the team as an Embassy Office, there would seem to be little need to change the status quickly. If the security climate permits us much greater access to provincial and city officials and enables us to provide consular and commercial services appropriate for a city the size of Basra, we should also have a Consulate General, but both of these conditions were inconceivable before 2008. The Embassy Office in al-Hillah is an excellent platform for supporting the Babil PRT and a variety of other U.S. Government functions housed there; if consular services are not necessary or feasible, it should remain an Embassy Office. While USAID deserves credit for much of the work done so far by PRTs, the teams should not be renamed "USAID teams" as long as their leaders are responsible for functions that do not fall

under USAID, such as rule of law, public affairs, and political and economic reporting.

Provincial Reconstruction Teams remain the best, most flexible format for civilian engagement at the provincial and local levels in Iraq. There is no need to create a single pattern for their further evolution. For maximum effectiveness, the teams and their successors should remain a decentralized structure, pursuing coalition and U.S. goals in Iraq according to the particular opportunities and challenges in each province. **JFQ**

NOTES

¹ For example, one tenet of counterinsurgency doctrine says we should not extend economic benefits to those in the population who support the insurgency. Another equally valid concept says that we should make the benefits of economic programs available as broadly as possible, to encourage those who tacitly support the insurgency to shift their support to Iraqi institutions and the counterinsurgency. This is not a purely tactical decision, as neither choice will work unless it is implemented consistently over time. The decision depends greatly on local circumstances, including how much we know about the population.

² Special Inspector General for Iraqi Reconstruction (SIGIR) 07-014, *Status of the Provincial Reconstruction Team Program Expansion in Iraq*, July 25, 2007, 12.

³ SIGIR 07-015, *Review of the Effectiveness of the Provincial Reconstruction Team Program in Iraq*, October 18, 2007, x.

⁴ House Armed Services Subcommittee on Oversight and Investigations, *Agency Stovepipes vs. Strategic Agility: Lessons We Need to Learn from Provincial Reconstruction Teams in Iraq and Afghanistan*, April 2008, 28.

⁵ Each embedded PRT, after arrival in Iraq in 2007, was required by the Corps commander (with Embassy concurrence) to prepare a plan jointly with the brigade or regiment with which it was embedded. The Office of Provincial Affairs also began requiring team leaders' plans from the other, provincial-level PRTs in the summer of 2007.

⁶ The author worked with a DynCorp team in Bosnia every day for 2½ years, 2001–2003.

⁷ SIGIR 07-015, x.



Chinese engineers working for UN–African Union Mission in Darfur arrive in Nyala, Sudan, July 2008

By EDWARD MARKS

UN (Stuart Price)

Why USAFRICOM?

The new geographic military command for Africa—U.S. Africa Command (USAFRICOM)—is an attempt to provide a solution to a felt problem. With laudable intentions, its creators are attempting to improve U.S. Government efforts in Africa by coordinating military activities with the Department of State and other agencies. Unfortunately, it is an idea deformed at birth, as it cannot produce the result desired but instead will only exacerbate the problem of over-militarization of U.S. policy and programs. It is a case of the cure being worse than the disease.

Why are we doing this to ourselves? There appear to be a number of doubtful assumptions underlying this decision.

That Security Comes Out of the Barrel of a Gun. Security is clearly a problem in

Africa today, but it is questionable if the contemporary problems in Africa are primarily security related in the Department of Defense (DOD) sense. This is not the Africa of the “Winds of Change” era where U.S. Government policy interests included Cold War concerns and where there was a great similarity of challenges facing the newly independent African governments taking over reins from their former colonial masters. Security in Africa today is *not* a military problem but a symptom of lack of effective governance. It cannot be resolved by more military training and equipment. Trying to use the military tool would be equivalent to resolving the Thirty Years’ War in Europe by injecting more sol-

diers and training and equipment rather than pursuing a political settlement (albeit one based on exhaustion).

While power may come out of the barrel of a gun, security comes from competent and legitimate governance. The Human Security Brief 2007 by the Simon Fraser University Human Security Center explains that the sub-Saharan African security situation was transformed between 1999 and 2006 with the number of armed conflicts and people killed dropping dramatically. This result was produced by a significant improvement in the form of governments and a number of conflict prevention initiatives (humanitarian missions, peacekeeping, and peace-building

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operations, largely pursued by diplomacy and international organizations). Little if any of this change was due to military engagement and institution-building.

Military engagement and institution-building are, of course, useful and often necessary. However, they should be consciously and carefully integrated into our overall policy and programs, not the other way around. Arguably, armies and police forces in Africa today are a significant part of the security problem because they do not belong to competent and responsible governments. Therefore, military-to-military programs in Africa will be counterproductive unless firmly subordinated to broader political and economic developments. It is difficult to see how this can be done when a military organization is put in charge.

we should be looking for a whole-of-government approach, not the tweaking of a military model designed primarily for warfighting

That a “Whole-of-Government” Approach Requires a Uniform. While security concerns are given as one justification for creating USAFRICOM, much of the justification focuses on political, economic, and social programs requiring planning and implementation in a “whole-of-government” or integrated agency approach. This justification for USAFRICOM argues that there is a need for new and innovative organization for dealing with Africa—and there may be—in which case we should be looking for a whole-of-government approach, not the tweaking of a military model designed primarily for warfighting (compare the Goldwater-Nichols reform of the combatant command system). How can we adopt a whole-of-government approach by putting it in uniform? Adding a few civilian officials to a military command will not meaningfully change the military character of the organization, which will have a staff of 1,300 people (according to USAFRICOM deputy commander Vice Admiral Robert Moeller in a briefing at the Brookings Institution on May 28, 2008) and be headed by a four-star general. No matter how we dress it up, a hammer is a hammer and should not be used to perform other tasks.

Apparently those designing USAFRICOM have fallen victim to an ethnocentric

American perspective on the military. Americans view their Servicepeople as fellow citizens and feel a strong bond with them—and quite rightfully so, as this has been the American experience. However, this history and this attitude are not shared by many in the world regarding their own militaries, much less foreign soldiers. That our hearts are pure cuts no ice, and putting a uniform face on what should be largely a civilian relationship will hinder if not destroy the possibility of success in fostering that relationship.

That New Organizations Will Provide Greater Effectiveness. Presumably there is an underlying assumption of greater efficiency in the USAFRICOM proposal. However, USAFRICOM as the primary organizational interlocutor with African countries will obviously introduce a new stovepipe into government operations. By the iron law of bureaucracy and the influence of professional deformation, the command will inevitably pursue its own cultural policy perspective and will create a new organizational claim on resources. Led by a very senior military officer, it will inevitably encourage an emphasis on military perspectives and programs in internal government deliberations and processes.

Yet this new organization is being installed just as the longstanding concern about the complexity and rigidity of the national security structure in a rapidly changing world is producing spirited discussion about the need to transcend bureaucratic stovepipes and create a more flexible bureaucracy. The phrase *whole of government* is intended to encapsulate that approach. Numerous studies and commissions, such as the high-powered Project on National Security Reform, are currently in the process of plotting new paths for a redesigned and more effective national security structure.

That Regionalism Is the Default Geopolitical Perspective. Regional names such as Africa and Asia are historical legacies. Large government bureaucracies have taken them on as sensible bureaucratic organizational constructs. There is nothing intrinsically wrong with that. However, the most striking aspect of the contemporary geopolitical environment is that it is not driven so much by geographic regionalism—however defined—but rather by globalization (political, economic, social, and technological) and localism (identity

politics, nationbuilding, and economic development).

Many of these challenges, of course, manifest themselves in geographic areas below globalization and above individual countries, hence the interest in regionalism. There are also political, economic, and cultural areas or regions, for instance, that compose the European Union. But many if not most of these characterizations are either subsections (for example, Korea) of the traditional geographic classification (Asia) or, as in the case of North Africa, are more closely tied to other regions (Mediterranean, Middle East). Also, many of these regions of U.S. Government interest cross traditional geographic boundaries, such as India-Pakistan-Afghanistan. In other words, policy concerns rarely coexist with the traditional geographic names, or, as the old military saying has it, battles often take place on the edges of maps. Therefore, no matter how you organize the U.S. Government, many if not most of the problems to be dealt with will require crossing organizational boundaries. This is especially true with respect to what are classified as nontraditional transnational threats.

In other words, it is not clear that “regional,” however defined, is a sufficiently discrete classification to require a formal bureaucratic structure to manage policy and programs. Whatever boundaries are adopted, they will only introduce new seams and



Ambassador Edward Marks

overlaps that can only act as obstacles in our attempts to deal with a world where *regional* is only a variable set of points on a continuum from *local* to *global*.

**That Africans Will Consider US-
AFRICOM a Compliment.** Whether or not Africans wish greater American involvement in their affairs is an open question, but in a region where the most toxic charge one can lay on someone is “neocolonist,” it is difficult to understand why anyone in Washington would believe that creating a military U.S. Africa Command would be welcome. Do people not understand the history of colonialism? That the proponents of USAFRICOM have found a handful of African personalities to support the idea proves nothing, if one is aware that a handful of Africans can still

The geographic combatant commands are intended to do what the military calls the operational art of war, whereby strategy is processed into tactics. Implementing the operational art has led the military to create the geographic combatant commands that are large bureaucracies located between the strategic headquarters (the Pentagon and the President) and the actual deployed military forces. These forces are then responsible for concrete actions within a defined geographical area in a stipulated timeframe, all in accordance with the military deliberate planning process and procedure.

However, there is no theory or doctrine or demonstrated need for a civilian equivalent to the “operational art.” In fact, even the military has moved away from it. Following

threat. Given this decision, why are we now adopting the geographic combatant command model for Africa, given the increasing globalization and localization of the geostrategic environment?

These engagement tasks for USAFRICOM are largely justified on two grounds: fighting terrorism and nationbuilding. As noted above, the Pentagon itself has decided that the geographic combatant commands are not the appropriate organizational mechanism for the war on terror. In addition, it might be useful to remember former Secretary of Defense Donald Rumsfeld’s almost *esprit de l’escalier* query: “Are we creating more terrorists than we are killing?” I doubt if the we he was referring to is the State Department, U.S. Agency for International Development (USAID), or the Peace Corps.

But there is the argument that US-
AFRICOM will be a new innovation in bureaucracy, heavily “civilian” in character, and will pursue largely civilian, nationbuilding types of programs. This is wishful thinking, as very large bureaucratic organizations do not assume the character of their smaller partners. In fact, according to a *Washington Post* article of July 18, 2008, a Government Accountability Office report noted that US-
AFRICOM, which is to have 1,300 employees, is having difficulty integrating a mere 13 staff members from the State Department and other agencies. Even without an “integration problem,” it is hard to understand how 13

that the proponents of USAFRICOM have found a handful of African personalities to support the idea proves nothing

be found who wish that colonial days would return and one remembers that individual public figures in every country can be found who respond favorably to perceived personal or organizational advantage.

**That Geographic Combatant
Command and USAFRICOM are
Consumer-friendly Terms.** By the way, who thought up the name Africa Command or USAFRICOM? USAFRICOM will seriously handicap American public diplomacy and strategic communication as long as it exists; it will be used forever as a stick to beat us with.

**That the Geographic Combatant
Command Is a Useful Organizational Model.** Even if the desirability of a new regional bureaucratic structure is accepted, the military geographic combatant command is not the obvious choice for a model. Geographic combatant commands are a refined version of World War II combat commands designed for the Cold War. In that confrontation, where we mainly avoided actual combat, the combatant commands expanded beyond their primary war planning and warfighting role into what are called engagement activities. The military tasks mentioned (briefly and vaguely) for USAFRICOM are of this engagement character with an “emphasis on capacity building,” with a careful statement that no warfighting duties are envisaged. (In which case, who is to do the warfighting in Africa if the need should arise?)

9/11, the U.S. Government decided that the primary security threat to the United States was violent radical Islamic terrorism. After making that decision, the Pentagon decided that the geographic combatant commands were not the appropriate organizational instrument and accordingly designated U.S. Special Operations Command (a global organization) as the lead military organization responsible for managing the terrorist

U.S. Marine Corps (Rocco DeFilippis)



Marines deliver humanitarian relief supplies in Monrovia, Liberia, as part of West African Training Cruise 2008

civilian employees would give USAFRICOM a “civilian character.”

Even if one accepts the need for a regional approach to partnership and collaboration with African countries, the question immediately arises as to why that is not done with existing organizations that already have that mission and, more importantly, have civilian characters. If these civilian institutions are not equipped or funded to do these jobs, then the more sensible and obvious answer is to make them equal to the task. A more useful approach would appear to be to empower, with people and resources, the relevant departments and agencies in the Departments of State and Agriculture, USAID, Peace Corps, and so forth. For example, the Office of the Coordinator for Reconstruction and Stabilization in State is still without meaningful operational funds 3 years after being created with a great deal of publicity. Secretary of Defense Robert Gates recently noted that USAID had 16,000 employees at the height of the Cold War, and now has about 3,000. Properly resourced, the relevant African bureaus and offices around the Federal bureaucracy could be networked to provide the integrated program called for.

The support to civilian engagement activities promised in USAFRICOM literature could certainly be provided by a well-staffed (and properly authorized) military coordinating staff. A more modest approach would appear to be in order. For instance, USAFRICOM could be restructured as

properly resourced, the relevant African bureaus and offices around the Federal bureaucracy could be networked to provide the integrated program called for

a Washington-based support organization responsible for security assistance in Africa. After all, its proponents insist that its primary function is not warfighting and that it will not have component combat forces. In that case, why the high-visibility geographic command structure and leadership? Renamed something such as the Africa Security Assistance Organization, placed in a symbiotic relationship with State and USAID's Africa divisions, it could pursue a very active and constructive support and

coordinating role. This would seem a more rational approach, especially as we are told that USAFRICOM will not have much in the way of component forces.

The USAFRICOM approach confuses the need for internal bureaucratic organization for management purposes (State's geographic bureaus, DOD's geographic commands, and the equivalents in other departments) with policy perspectives. This is certain to introduce a stovepipe perspective into a governmental structure that in today's world needs to move the other way—toward a holistic whole-of-government approach.

There are other problems with the USAFRICOM idea, most notably the persistent desire to physically locate the headquarters or a set of subordinate offices in African countries. Apparently the proponents of the command have neither noticed that, nor asked why, only U.S. European Command (a unique historical instance) is located outside of American territory.

Most importantly, there should be widespread concern about the use of a military instrument to manage our continent-wide political and economic relations. There is currently a great deal of concern about the alleged over-militarization of our foreign policy. Our political leadership persists in calling upon our large but overworked military Services to do ever more just because they exist, and it appears easier to load new jobs on them rather than do the harder work of creating more appropriate capabilities elsewhere in the bureaucracy.

The reactions to USAFRICOM coming out of Africa are only the surface manifestations of the continuing adverse political aspects of the widespread U.S. external military presence. That presence is seen by many as a visible sign of an imperial structure, and no amount of protestation of innocence or adding a few civilian staff will change that impression. The widespread deployment of the American military is often desirable and often necessary—for others as well as for us—but there is no need to rub people's noses in the fact.

The increasing militarization of our foreign relations is already painfully obvious: why then are we expanding it even further in Africa? Creation of U.S. Africa Command is a retrograde move, fulfilling H.L. Mencken's observation that there is always a well-known solution to every human problem—neat, plausible, and wrong. **JFQ**

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Children scavenge for food and clothing in garbage dump, Juba, Sudan

UN (Tim McKulka)

U.S. AFRICA COMMAND

Value Added

By MARY C. YATES

While working and living in Africa during my service as foreign policy advisor to U.S. European Command (USEUCOM), I have gained a hands-on appreciation for how the U.S. military employs geographic combatant commands (GCCs). Contrary to the views of Ambassador Edward Marks, I am convinced these commands are more relevant in the post-9/11 environment than ever before. The manner in which they perform their roles has shifted in response to the new realities of the 21st century and the National Security Strategy, just as the roles of all U.S. Government agencies have shifted. In particular, this shift is reflected in National Security Presidential Directive 44 (which requires broader interagency integration during postconflict stabilization and reconstruction operations) and in subsequent trends toward interagency approaches for addressing other complex security challenges. However, because of the visibility of the Department of Defense (DOD) and geographic commands in recent years, there has been a tendency to overstate the intentions of some Defense Department initiatives.

Ambassador Marks' article effectively asserts that the motives behind the establishment of U.S. Africa Command (USAFRICOM) extend well beyond that of being simply a DOD reorganization. The truth is that no such ulterior motives ever existed. This command was

created to address shortfalls in DOD abilities to support African efforts to build partner security capacity, efforts that were previously divided among three GCCs. Its unique organizational structure and designated focus areas were designed with the needs of Africans in mind, such that this new command will not only continue previous efforts, but also add value to them.

The GUC Role

Words are important. One of Ambassador Marks' points is that the term *geographic combatant command* is not "consumer-friendly." From my work with African leaders, I tend to agree. Furthermore, as the US-*AFRICOM* mission is primarily nonkinetic, we avoid using the term ourselves. Instead, we refer to our command as a *geographic unified command* (GUC).

The purpose and roles of GCCs (that is, GUCs) are described in Joint Publication 1 (JP 1), *Doctrine for the Armed Forces of the United States*:

GCCs [GUCs] develop strategies that translate national and multinational direction into strategic concepts or [courses of action] to meet strategic and joint operation planning requirements. [GUCs'] plans provide strategic direction; assign missions, tasks, forces, and resources; designate objectives; provide authoritative direction; promulgate rules of engagement . . . or rules for the use of force.¹

Strategic direction is later described to include theater security cooperation activities to "build defense relationships that promote specific U.S. security interests, develop allied and friendly military capabilities for self-defense and multinational operations, and provide U.S. forces with peacetime and contingency access to a region."²

With respect to their relationships with counterparts from the Department of State and U.S. Embassies, JP 1 states that GUCs:

are responsible for integrating military activities with diplomatic activities in their areas of responsibility (AOR).³ The U.S.

ambassador and the corresponding country team are normally⁴ in charge of diplomatic-military activities in countries abroad. When directed by the President or Secretary of Defense, the [GUC] employs military forces in concert with the other instruments of national power.⁵

These roles apply to all GUCs. What is different is that their priorities are based on the strategic environment in their respective AORs, which then feed into their organizational structure and the programs and activities routinely conducted. But all GUCs

Nations leadership. Concurrently as the conflict was winding down, peacekeepers were needed. I was honored that, despite the strain on USEUCOM's resources and forces from commitments to the Middle East, the command sent U.S. military advisors to help West African militaries plan and deploy peacekeepers to Liberia. The employment of the Southern European Task Force as Task Force Liberia raised morale and lent military support by deploying peacekeepers into Monrovia's air and seaports. I witnessed first-hand the U.S. military's successful effort to provide needed expertise, but USEUCOM was forced

all geographic unified commands are expected to maintain contacts with and address the security needs of every willing nation within their areas of responsibility

are expected to maintain contacts with and address the security needs of every willing nation within their AORs. The main focus of U.S. Central Command (USCENTCOM) has been operations in Iraq and Afghanistan, but the command has maintained full engagement with the nations of the Horn of Africa, Central Asia, and the Middle East.

Those accustomed to the USEUCOM availability of resident forces might assume that USAFRICOM's lack of such forces equates to no military response capability. This is absolutely false. When the President, through the Secretary of Defense, directs a military operation, that operation is implemented with the right capabilities to do the job, whether they come from a GUC's own assigned forces (if they have them) or elsewhere. Moreover, assigned forces still belong to the DOD global force pool, and USEUCOM has already contributed greatly to the deployed power employed in the Middle East.

The greatest value of the GUC is in providing strategic direction and planning missions within its AOR. Here is where the command's establishment was deemed necessary.

Still Relevant

When I was the U.S. Ambassador to Ghana in the summer of 2003, the Liberian peace talks were under way in Accra and making progress under the Economic Community of West African States (ECOWAS) and United

to prioritize between two ongoing operations on different continents. Although a team was ultimately deployed, it would have been more effective with the presence of a USAFRICOM to maintain Africa-specific expertise and a "dedicated" response.



Ambassador Mary C. Yates

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Moreover, the African Union (AU) is emerging as an important collective African organization, and the AU Peace and Security Commission has not only taken on significant peacekeeping missions but also is working hard on conflict prevention. African nations are collaborating to establish their own standby forces prepared to respond to contingencies across the continent. These forces are being aligned regionally, such as the brigade formed by ECOWAS. While in Ghana, I watched this evolve from a concept to a detailed draft command structure plan for the first regional brigade under the leadership of the then–chief of defense, a general who had been identified decades earlier and schooled and trained in U.S. military institutions. USAFRICOM, as requested, will work closely with the AU, its regional communities, and allies in developing and training these forces. When U.S. military engagement in Africa was divided among multiple GUCs, it was difficult to have one consistent program that holistically addressed what is a continent-wide partner capacity-building requirement. USAFRICOM will be *value added*.

Ambassador Marks highlights the fact that Africa is not a cohesive whole and should not be treated as a single entity, and the above experiences showed that lumping most of Africa with the whole of Europe and Eurasia was not the best solution. The security environments were completely different, causing

the GUC to be organizationally bifurcated. When national security interests become heightened, prioritizing among the needs of European, Middle Eastern, and African nations—even for military issues alone—should not be undertaken at the GUC level. That type of prioritization should occur at the highest levels of our government through policy. USEUCOM (like USCENTCOM and U.S. Pacific Command [USPACOM]) did its best to mitigate this concern and became a staunch advocate for military engagement in Africa as evidenced in its most recent posture statements. But it was clear the time had come for military matters across Africa to be addressed as a whole for greater consistency, efficiency, and effectiveness and to work with those African institutions focused on security. The time for USAFRICOM had come.

The parameters under which the command was established were a direct reflection of the African strategic environment. A major distinction between Europe and Africa related to the fact, to which Ambassador Marks alluded, that security issues in Africa required a holistic approach and that the establishment of good governance and development had to occur in concert with efforts to improve and professionalize African militaries. This was hardly a new idea. African civilian and military leaders have been saying so for many years, and we listened to these leaders this past year at two conferences.

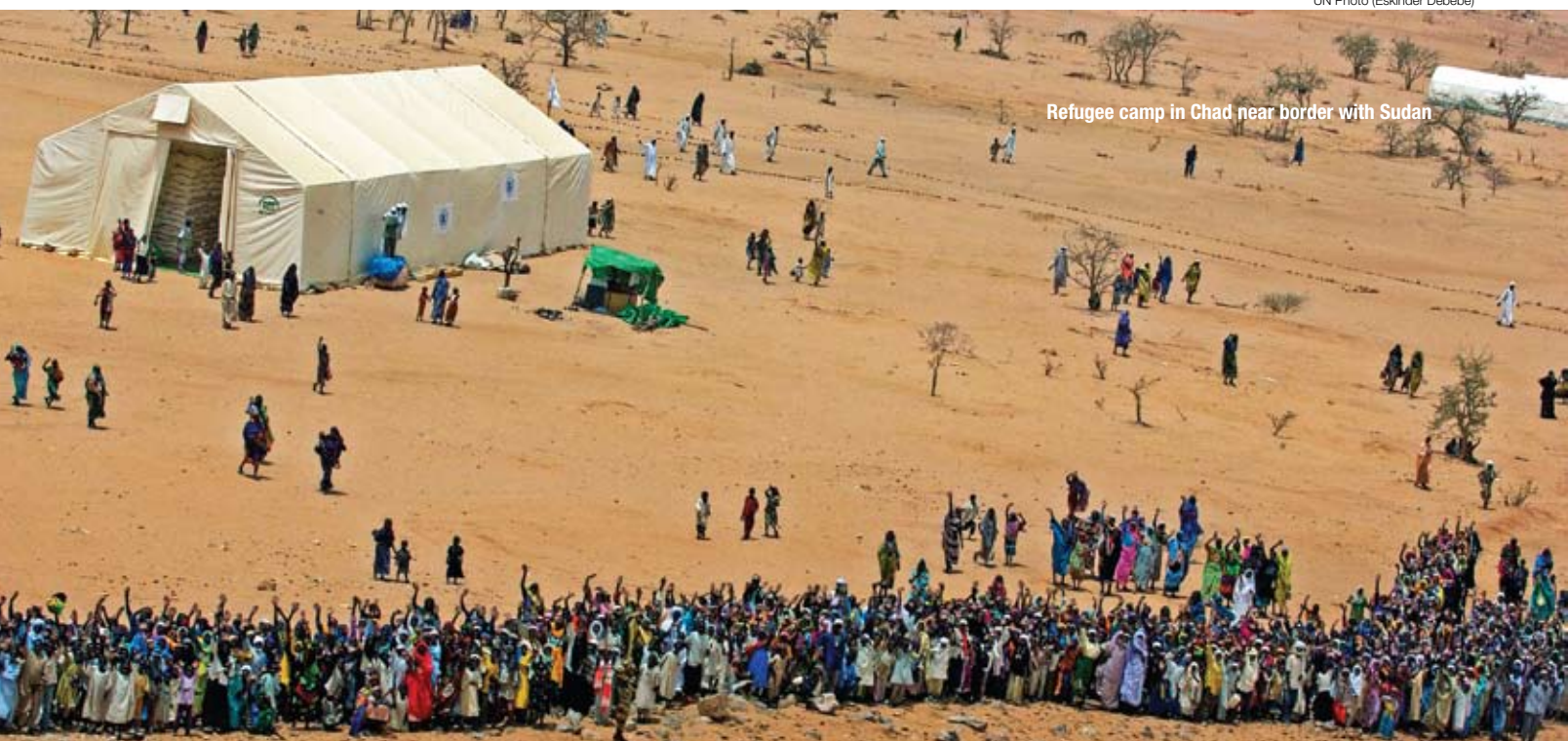
The manner in which we built inter-agency coordination into the command shows that we listened. Rather than establish an interagency task force somewhat divorced from the rest of the headquarters staff, US-AMRICOM integrated interagency members throughout the command and placed them in positions where their subject matter expertise could be best used. The rules of engagement are such that no one in USAFRICOM exercises any authorities over the activities of other U.S. agencies and that the command's roles are not expanded beyond that designated in JP 1.

USAFRICOM integrated interagency members throughout the command and placed them where their subject matter expertise could be best used

Importance of USAFRICOM

Ambassador Marks' assertion that the command is going to be in charge of inter-agency coordination or activities in Africa is incorrect. The command may ultimately add to the narrative of the application of the "whole of government" approach, but in fact, this paradigm was not a consideration as the plans were being drawn by the command's Implementation Planning Team, nor was it

UN Photo (Eskinder Debebe)



Refugee camp in Chad near border with Sudan

addressed in the USAFRICOM Implementation Guidance issued by the Secretary of Defense. The command's structure was designed to help the military make better informed decisions on security matters in Africa so it could add value to the programs it was responsible for.

Ambassador Marks' assertion that USAFRICOM would be the "primary organizational interlocutor with African countries" is wrong, as is the implication that we would create a new stovepipe in governmental operations. What occurred on October 1, 2008, is that instead of African nations calling USEUCOM, USCENTCOM, or USPACOM for DOD business, they now call USAFRICOM. Meanwhile, everything the command does is in support of U.S. foreign policy and subordinated to chief of mission authority and the mission campaign plans produced.

Ambassador Marks expressed a great deal of concern over the command's formation to conduct "nationbuilding" or other activities that are of a political or economic nature. This is a mischaracterization of the types of civil-military operations (CMO) that all GUCs are chartered to perform—activities that I greatly welcomed during my ambassadorial tours in Africa. Joint Publication 3–57, *Civil-Military Operations*, describes CMO as a collective term for efforts to "consolidate and achieve operational U.S. objectives through the integration of civil and military actions." These include support to civil administration, populace and resource control, foreign humanitarian assistance (FHA), nation assistance, and civil information management. All CMO is conducted under chief of mission approval.

Most CMO conducted in Africa is foreign humanitarian assistance, which is

in Pakistan after the earthquake or in Aceh, Indonesia, after the tsunami. Moreover, USAID has been supportive of USAFRICOM from the initial days of the planning team because that agency sees the great potential in our working together to advance goals.

Regarding the employment of the U.S. Special Operations Command (USSOCOM) as the lead DOD element for executing the war on terror, I must clarify an important point that Ambassador Marks overlooks. Military-to-military relationships belong to a GUC and fall under chief of mission authority. USSOCOM is not a GUC; it is a functional unified command that exercises global responsibilities for a particular function *in support of* GUCs. Therefore, while USSOCOM (through U.S. Special Operations Command–Africa) conducts many capacity-building activities in Operation *Enduring Freedom–Trans Sahara*, the command and control of those activities falls under USAFRICOM and is coordinated with chiefs of mission. As a former chief of mission, I never dealt with USSOCOM for one thing and the GUC for another. I wanted a simple, consistent, single horizontal line of communication to address DOD matters. That was the GUC.

Ambassador Marks correctly points out that the proper framework of a whole-of-government approach has yet to be developed and adequately resourced. But that is no reason to denigrate USAFRICOM's efforts to add value to the GUC contributing role in the security domain. The national approach is being pursued, but it will take time. I highlight the joint statement of Secretary of Defense Robert Gates and Secretary of State Condoleezza Rice to Congress early in 2008, calling for increased

waters. The program combines several aspects of maritime security that cut across the civil and military domains: counterpiracy, counter-trafficking, and maritime domain awareness, among others. Consequently, it includes not only U.S. Sailors but also U.S. Coastguardsmen and other agencies and international partners working together to present a cohesive and coherent training program tailored to the needs of our partners. Or they could watch the development of African Endeavor 2009, an annual communications interoperability exercise that last year involved 26 nations. These programs and others similar to them are what U.S. Africa Command is about, and they demonstrate how we add value to the achievement of U.S. foreign policy objectives.

The command has an extensive outreach program designed to build partnerships and support for its efforts. Information is available through the Web site at <www.africom.mil>, and we are always available to answer questions and discuss the command, its activities, its relationships with other U.S. Government agencies, and its perspectives on African military matters. **JFQ**

NOTES

¹ Joint Publication 1 (JP 1), *Doctrine for the Armed Forces of the United States* (Washington, DC: The Joint Staff, May 14, 2007), I–14.

² Ibid., I–16.

³ We have also found that the term *area of responsibility* (AOR) is as consumer-unfriendly as *geographic combatant command*. While the term is defined to explain the area within which a geographic unified command (GUC) is responsible for DOD programs and activities, there is a perception that it implies responsibility over the affairs of the nations themselves. In addition, U.S. Africa Command has requirements to support other nations (such as Egypt, which we share with U.S. Central Command) that are not in Africa Command's AOR. Therefore, we developed a new term, *area of activity*, that encompasses the land, air, and maritime domains in which a GUC conducts its activities. We recommend that this term, along with *geographic unified command*, be formalized and considered for entry into joint doctrine.

⁴ The word "normally" implies that there are exceptions, but only in extreme emergencies where the diplomatic apparatus is not present or has been incapacitated. Even in such circumstances, the military recognizes the importance of restoring diplomacy as quickly as possible.

⁵ JP 1, I–9.

the proper framework of a whole-of-government approach has yet to be developed and adequately resourced

"conducted to relieve or reduce the results of natural or man-made disasters or other endemic conditions such as human pain, disease, hunger, or privation." But this is done to supplement the activities of the U.S. Agency for International Development (USAID) or other agencies conducting FHA. These activities do not constitute nationbuilding, but they do provide an important stabilizing effect. None of these activities is led by the Defense Department, but there are times when DOD's assets visibly assist USAID missions, such as

funding and resources to U.S. Government agencies so the mandate for interagency integration at the national level could be fulfilled.

I recognize that there are readers who will share Ambassador Marks' sentiments about USAFRICOM. For them, I recommend watching the ongoing deployment of the Africa Partnership Station (APS) in the waters around West Africa. This year's at-sea training platform is the second deployment in the APS program that helps partner nations to build maritime capacity to manage their territorial



B-29 bombers operated from bases in Pacific against mainland Japan

By THOMAS ALEXANDER HUGHES

A General Airman

MILLARD HARMON AND THE SOUTH PACIFIC IN WORLD WAR II

U.S. Air Force

Last summer's forced resignations of U.S. Air Force Secretary Michael Wynne and Chief of Staff T. Michael Moseley scratched old scabs produced by decades of contention between the Air Force and the Nation's wider military establishment. Disputes over the proper role of airpower predate the court-martial of Billy Mitchell in 1925. In the years since, these arguments have been marked by transcendent issues, such as the command and control of aircraft, and matters more idiosyncratic to time and place, such as the pattern and practice of Air Force procurement programs. Setting aside whatever may be the relative merits in this most recent flap, the stewards of the Nation's air arm and those of the Department of Defense have been at this debate for a long time, sometimes with depressing results.

One indication of the persistent ebb in these relations is the dearth of Air Force representation among U.S. geographic combatant

commanders. Since the passage of the Goldwater-Nichols Department of Defense Reorganization Act in 1986, these officers have been the senior military men most responsible for fighting the Nation's wars. From that time, only three Air Force officers have held these vital positions, a scarcity that extends back to the birth of the Air Force in 1947. In fact, from that time to now, many dozens of Army, Navy, and Marine Corps officers have occupied these powerful positions while fewer than a handful of these commanders have come from the ranks of the Air Force.¹

Parochial Service interests might explain some of this imbalance. One recent attempt to assign an Air Force officer to a geographic combatant command illustrates how Service prerogatives have torpedoed Airmen's chances for these influential posts. In 2004, President George W. Bush nominated General Gregory Martin, USAF, to lead U.S. Pacific Command, long a bastion of Navy admirals. General Martin was supremely qualified for

the job, not only possessing the expertise of his Service but also blessed with the comprehensive mind required of a joint force leader. Once in the Senate, however, his nomination crashed against the shoals of Navy interests. Senators with close ties to the Navy seized upon Martin's passing association with the ill-fated scheme to lease aerial tankers from the Boeing Corporation, dooming his chance for selection. Shortly thereafter, yet another admiral assumed command in Hawaii, as they had since before World War II. Martin's stillborn chance was remarkable not for its outcome—for the Air Force is often left the odd man out when it comes to these jobs—but for how close he came to command. Most Airmen never get anywhere near a Presidential nomination for a geographic combatant command.

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Becoming an Airmen

If examples of Airmen as true geographic combatant commanders are few and far between, some flyers have served brilliantly in billets requiring expertise in more than air matters and in jobs where obligations ran well past narrowly construed Service interests of any color or hue. One such officer was Lieutenant General Millard F. “Miff” Harmon, the senior Army Air Forces officer serving in an Army—not an air forces—billet during World War II, whose service has hidden in the shadows for far too long. His younger brother Hubert, the first superintendent of the Air Force Academy and namesake of the school’s Harmon Hall, has garnered most of the family’s name recognition. But the older Harmon’s service was every bit as illuminating.

Born into an Army family in 1888, Miff Harmon graduated from West Point in 1912, entered the Infantry, and served in the Philippines, which was the proving ground for so many of the Nation’s bright young Army officers in the early 20th century. In 1916, he transferred to the Aviation Section of the Signal Corps and was a pilot in the Punitive Expedition into Mexico, making him among the first few American aviators to serve in combat. During World War I, he was in France as the Assistant Chief of the

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Air Service, in which capacity he certified William “Billy” Mitchell as a Junior Military Aviator. Later, he worked by Mitchell’s side planning the seminal American air offensives of 1918 and with Edgar Gorrell on the latter’s famous airpower survey of World War I.

Harmon filled key air posts in the years between the world wars. In the mid 1920s, he was the commanding officer of the Air Corps’ flying school at March Field, where he oversaw the flight training of such later luminaries as Hoyt Vandenberg, Nathan Twining, Haywood Hansell, and Curtis LeMay. In the 1930s, he commanded both a pursuit and bomb group and served as the inaugural commander of Barksdale Field in Louisiana. Later that decade, he was the Assistant Commandant of the Air Corps Tactical School, where he was the de facto chief curriculum officer.

In 1940, he was among a handful of officers that the air arm chief, General Henry “Hap” Arnold, sent to England to glean lessons from the aerial Battle of Britain. Harmon did this job to such satisfaction that in the summer of 1941 Arnold promoted him to major general and tapped him to lead the Army Air Forces’ Air Combat Command, making Harmon the senior combat airman in the country. For the 6 months after Pearl Harbor, Harmon was Arnold’s chief of staff in Washington, putting in 18-hour days as airmen strived to bring order to chaos, to begin building the air forces from perhaps 75,000 men to more than a million, and to get scarce planes and precious pilots to the four corners of the globe.

Harmon was by then an airman through and through, comfortable within the fraternity of pilots and acculturated to the canon of air doctrine. As early as World War I, he believed it essential that air operations be directed by an airman whose authority in the air war should override that of the most senior generals responsible for the ground fight. In the 1930s, he championed the concept of centralized command and decentralized execution of air operations, many years before Field Manual 100–20, *Command and Employment of Air Power*, made it a central battle cry for airmen. While in England during the Battle of Britain, he criticized the Royal Air Force’s nighttime bombing operations, believing the American doctrine of daylight precision raids would have yielded far better results. And in an essay laying out an educational scheme for airmen that later became the basis for an independent Air Force’s entire system of professional military education, he believed the Nation’s air arm was destined either to achieve “parity with the Army and Navy in the scheme of National Defense or absorb them one or both.”²

But he never became a zealot in the interwar years’ heated skirmishes over airpower, maintaining instead a discriminating advocacy for military aviation. He had witnessed how the austere desert had wreaked havoc on the men and machines of the Punitive Expedition, and forever after trained a skeptical eye on some of the more fantastic claims being made for airpower. In the early 1930s, he mocked the notion that air war had mitigated age-old matters such as weather and logistics. “It is difficult to understand how adequate bases are to make flying in bad weather any less difficult,” he wrote in response to one prominent Air Corps treatise,

adding “surely an air force, like any other force, can be defeated by stopping its supplies or replacements.” When the same text claimed the marvel of modern airplanes had made the men who flew them “inferior in importance,” Harmon decried the fanciful “exactitudes” of contemporary air concepts, writing, “A note of caution should be sounded against the too ardent adoption of peace time theories and hypothesis.”³

Harmon championed the integrative nature of airpower as an alternative to these views. When in the early 1930s the bomber mafia and its notions of autonomy gained ascendancy, he clung to a belief, first articulated in World War I, that success in the air war sometimes required “as close a cooperation with the infantry as possible.” Likewise, his student paper while at the Army War College had argued for the “closest cooperation and the most efficient coordination of effort between the Army and Navy” if the United States should ever confront large-scale maritime war. Later, while serving as the Assistant Commandant of the Air Corps Tactical School at Maxwell Field, Harmon played a key part in restoring balance among the bombing, pursuit, and attack courses, even orchestrating close air support exercises with the Infantry School at nearby Fort Benning. This last endeavor earned him a rebuke from Arnold, who, from his perch as Chief of the Air Corps, warned Harmon his curriculum reforms threatened to transform the tactical course “from an air to a ground school.”⁴

Despite this chiding, Harmon remained committed to most of the important airpower orthodoxies of the day, which saved him the ignominy suffered by iconoclast nonconformists such as Claire Chennault. By 1941, he was a Hap Arnold confidant, an Ira Eaker writing cohort, and a Carl Spaatz poker partner. According to Grandison Gardner, Harmon’s

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boss at the Air Corps Tactical School in the late 1930s, Harmon was one of two officers whom Arnold leaned on the most in those crucial years before World War II; the other

was Spaatz. When war came to this greatest generation of airmen, Harmon was among the handful of senior pilots primed to contribute in the approaching air war.⁵

Island-hopping in the South Pacific

Then the war exercised its own prerogative. In the summer of 1942, it sent Harmon to the far end of the world to be commanding general of U.S. Army Forces in the South Pacific Ocean Areas, working for Admiral William Halsey. The move made Harmon the senior air forces officer serving as an Army general in a combat zone. His unusual appointment stemmed from concerns of both Soldiers and airmen in Washington about the conduct of operations in an overwhelmingly naval theater. When he took up his post in Noumea, New Caledonia, for instance, the South Pacific joint staff of 103 included just 3 Army or Army Air Forces officers and 100 naval and Marine men—all of whom were clamoring for Army Air Forces' B-17s to conduct maritime reconnaissance. Army Chief of Staff George Marshall wanted Harmon to leaven this staff with Army acumen, and Hap Arnold agreed to part with his trusted assistant to ensure a more appropriate use than patrol for the powerful and still-too-few B-17s. Technically, Harmon's orders conferred to him only administrative control of all Army and air forces units in the South Pacific—a command that eventually numbered over 100,000—but the idiosyncrasies of the South Pacific theater offered ample opportunity for forceful commanders to stretch toward tactical and operational control of combat forces.⁶

This is just what Harmon did, especially as that control related to the ground fight. He arrived in theater a week before the battle for Guadalcanal began on August 7, and he understood earlier than many the meaning of that colossal struggle. Almost immediately he pushed for a clear-minded focus on Guadalcanal operations. He waged a lonely staff battle to eliminate a supplemental landing planned for the small island of Ndeni, a move he argued would free up the 147th Infantry Regiment for important tasks on Guadalcanal. When difficult conditions on Guadalcanal persisted well into October, Halsey cancelled the Ndeni invasion and sent the 147th to the main fight on Guadalcanal, where it played a decisive role clearing space for a crucial airfield.

To meet the continuing crisis on Guadalcanal, in November Harmon lobbied General Marshall in Washington and Admiral Chester Nimitz in Honolulu for the 25th Infantry Division, which was in Hawaii and tentatively slated for General Douglas MacArthur's invasion of Papua New Guinea. Having won the division's release over MacArthur's objections, Harmon then sent it directly to Guadalcanal, bypassing an intermediate stop in Noumea where Army officers had planned a more orderly introduction to combat. Redirecting an entire combat division while at sea was a risk that drew a sharp cable from Marshall to Harmon. In it, the Army chief did not "propose to question your decision as to the tactical utilization of forces under your command," but he did want to remind Harmon of the peril inherent in landing a large force "in an area where security is questionable and port facilities practically non-existent." Yet the division, led by Major General Joe Collins, reached Guadalcanal safely, raising both the morale and the fight of the Americans just as the last of the major Japanese reinforcements to the island arrived.⁷

Impressed by Harmon's keen judgment, in December Halsey rewarded the airman with "direct authority over tactical operations" on Guadalcanal, which in effect placed Harmon in operational command of the XIV Corps, comprised of elements of the 25th and 43^d Divisions. In the years after World War II, much would be made of General George Patton's rhetorical offer in 1944 of a ground division for his air commander, the redoubtable O.P. Weyland. Two full years before those famous events on the Normandy plain, however, another remarkable airman had combat control of an entire Army corps—and nearly all of the fighting ground forces—in the most crucial offensive then being waged by Americans in any theater of the war.⁸

In February 1943, Harmon earned his third star, relinquished control of the fading fight on Guadalcanal to Major General Alexander Patch, and commenced planning the invasions of the New Georgia and Bougainville island groups, farther up the Solomons chain and closer to the South Pacific's ultimate objective of Rabaul. Command arrangements for these operations were muddled, providing yet more opportunity for Harmon as an Army general. For instance, although Halsey nearly always served as the overall commander as

well as the Navy component commander, the respective invasion, ground, and air commanders were often different for each island campaign. Because operations on one island exerted operational influences on those of another, Halsey needed someone to act as his de facto deputy for the air and ground operations throughout the theater. As his confidence in Harmon grew, Halsey increasingly looked to the airman to fill this role.

Although he was serving in an unanticipated and wholly unprecedented capacity, Harmon did not shirk his responsibilities as

Halsey needed someone to act as his de facto deputy for the air and ground operations throughout the theater

a ground forces leader. When in the summer of 1943 the fight on New Georgia stalled, Harmon recommended the relief of the ground commander, Major General John Hester of the 43^d Division, a move that the invasion commander, Rear Admiral Kelly Turner, vigorously opposed. Halsey sided with Harmon, not only replacing Hester with Major General Oscar Griswold but also directing Harmon to "assume full charge of and responsibility for ground operations in New Georgia." Hester's relief earned Halsey a hurried note from Nimitz, who worried about inter-Service discord, but as Halsey had relied



on the recommendation of his Army commander Miff Harmon, he did not think the Navy open to harsh critique and indeed not much materialized. Later, in the fall of 1943, Harmon's misgivings about the planning for the invasion of Bougainville led him to again recommend to Halsey the relief of a ground commander, this time Marine Major General Charles Barrett, an intention that may have contributed to Barrett's probable suicide on October 7 in Noumea.⁹

A General in Name and Practice

These were tough times. The war's outcome was not yet clear, the South Pacific fight was brutal, Barrett's death was tragic, and the cruel combat on those remote islands would ruin more careers before the war moved on to other battlefields. In fact, when Halsey reflected about the South Pacific after the war, he recalled that "the smoke of charred reputations still makes me cough." But the Japanese were yet too strong—and the stakes to America far too high—to excuse poor performance or tolerate mediocrity. In the end, the Army's official historians praised Halsey for his prompt attention to all manner of challenges in the ground war, which was in their judgment "a mark of the efficiency of the South Pacific command."¹⁰

It was also a matter of Miff Harmon's contributions. Neither Bill Halsey nor any of the admirals who ran the South Pacific were adept at ground operations, and they relied heavily on the senior Army officer in the area. Nimitz himself once praised Harmon as a "first-rate selection" for the difficult South Pacific assignment. In this role Harmon was not perfect, however. He tended to meddle in the fine details of subordinate commands, a habit common among the airmen who had come from the small prewar Air Corps and who were unaccustomed to the workings of large organizations. Moreover, Harmon's own staff, initially overpopulated with air officers, struggled at first to conceive, plan, and direct ground operations. But in the South Pacific's early months Harmon grew and learned. His incessant preaching about hygiene and health in the trenches, something he had learned as a young infantryman, earned him credibility with rank-and-file grunts—and his devotion to joint planning, a conviction honed during an interwar teaching tour at the Army War College, purchased for him latitude to discover the art of ground warfare.¹¹

All officers, if they become senior enough, confront unfamiliar horizons. This was Harmon's moment, and while in it he displayed an uncanny capacity to know when and to whom he should listen, and to know when to accept counsel and when to rely on his own sense. He was blessed with strong ground commanders, including Alexander Patch and two future Service chiefs—Archie Vandegrift of the Marines and Joe Collins of the Army. He wisely deferred to their judgment on many occasions. He also managed to reach difficult decisions about those less able to perform in the Solomons' harsh environment. Not once, not twice, but three times he redirected the movement of divisions or regiments afloat, each time against the advice of more experienced ground officers. Army historians later characterized these gutsy calls as "decisive," "inspired," and "brilliant," crediting the adjustments with helping turn the tide on Guadalcanal and assuring success in battles on New Georgia and Bougainville. From nearly his first day in the South Pacific, Harmon recognized that he was a general in both name and practice. The Nation asked no other officer of similar rank to stretch quite as far in quite the same way. In the process, Harmon managed to become something more than that from which he had come.¹²

Curiously, Harmon met with less direct success supervising the air war, the task for which he had spent a lifetime in preparation. When he first arrived in theater, seven of his nine staff cadre came from the air forces, including Frank Everest, Dean Strother, and Nathan Twining, a future Chief of Staff of the Air Force and Chairman of the Joint Chiefs of Staff. Such a staff was a clear sign that Harmon "intended to uphold the interests of the Army Air Forces in this predominately [sic] naval area." This proved difficult, partly because the Navy and Marine Corps had strong airmen of their own in the South Pacific, such as John McCain, Marc Mitscher, and Roy Geiger. Their collective excellence meant less opportunity for Harmon to extend his administrative responsibilities to operational and tactical command, no matter

how much he worried about naval and Marine sensibilities regarding aviation.¹³

Accordingly, Harmon turned to organizational matters, aiming to gain what responsibility he could for the conduct of the air war. He convinced Arnold that a numbered air force in the South Pacific would better align the air arm's organization with Navy structures and further airmen's interests. When in December 1942 the Thirteenth Air Force stood up, Harmon placed Twining at its head and pushed

South Pacific air commands were hybrid organizations, being both joint and combined and comprised of assets from the Navy, Marine Corps, and Army, as well as New Zealand

to rotate operational command of the air war among the Services. Eventually, Twining took his turn in that role, as did Harmon's younger brother, Hubert. These South Pacific air commands (first the improvised Cactus Air Force and later the more formal Air Solomons

U.S. Army Center of Military History



MG Harmon (right) discusses Guadalcanal campaign with BG Nathan Twining

Command and Air Solomons Command North) were hybrid organizations, being both joint and combined and comprised of assets from the Navy, Marine Corps, and Army, as well as from New Zealand. The potential for Service interest to detract these units from their primary task was great, and the rotational policy of command was one ingredient making possible their dogged attention to the more immediate and pressing matter of besting the Japanese in the air.

In fact, these were among the most successful air commands in all of World War II. Far from home, at the short end of logistical and strategic lines of communication, South Pacific airmen of every branch worked effectively to turn the tide of battle. For months, the fight there pitted relatively equitable ground and sea forces against each other, leaving airpower to arbitrate who would win and who would lose. Time and time again, tight ground fights and close naval encounters hung in the balance until aviation weighted the outcome. The Solomons air campaign constitutes a shining example of combined, joint, and effective air campaigning, and today remains an underappreciated and understudied part of the war. Many contributed to this success. If Harmon played a less direct role in the air war

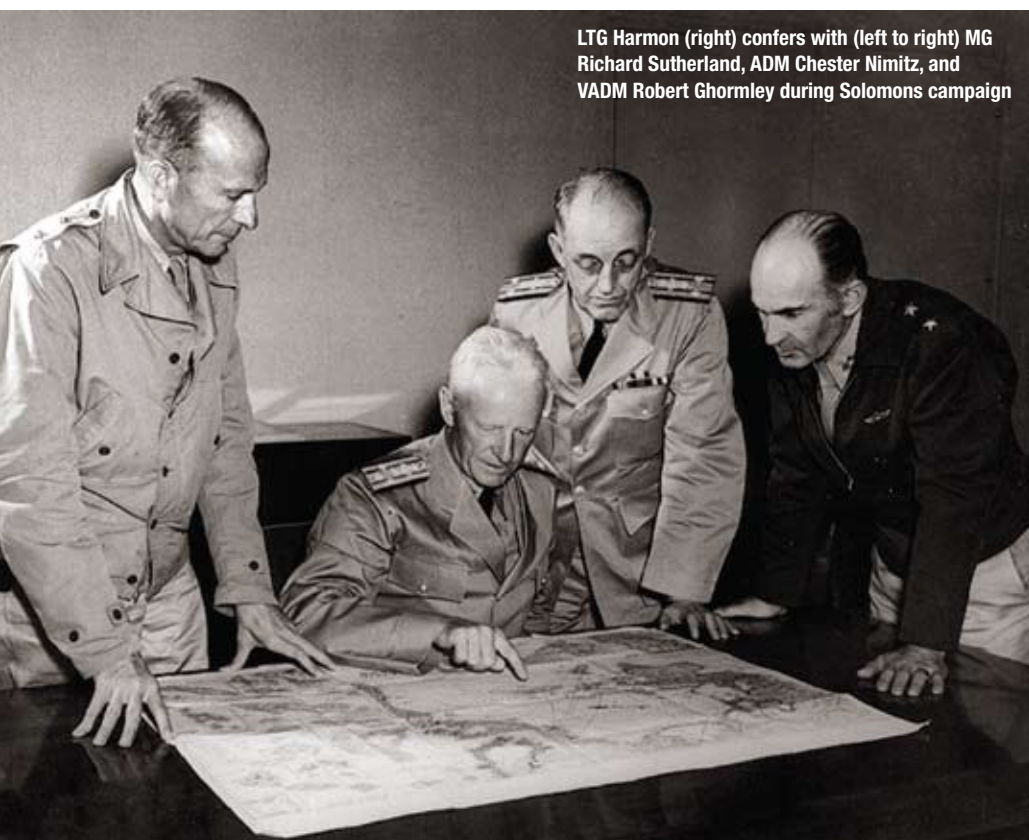
than he wished, as the senior Army Air Forces officer in the South Pacific he possessed the rank and position to broker air-ground differences, smooth the way with the Navy, and create the circumstances whereby subordinate airmen of every Service and individual pilots in cockpits could do what they did.

Harmon did intervene personally where he was able. Like Arnold in Washington, he disagreed with naval plans to use precious B-17s for maritime patrol in the South Pacific, worried about diverting these powerful weapons from their primary task over the skies of Germany. So in the fall of 1942, Harmon embarked on an aggressive airfield construction program throughout the theater, aiming to better position shorter legged naval patrol planes for reconnaissance duties. These airfields, which required scarce resources to build, also enabled the offensive use of bombers up the Solomon Islands chain, a fact that irked George Marshall, who had sent Harmon to conduct a defensive campaign consistent with the Nation's strategic orientation toward Europe. But Harmon pressed forward. The matter of proper bomber employment was the subject of dozens of official memorandums, staff studies, personal letters, and diary entries. In the 2 years he served in the

South Pacific, Harmon probably devoted as much time trying to preserve the strategic use of bombers as he spent on any issue, and was persistently willing to court the ire of his Navy and Army superiors in so doing.¹⁴

Harmon did not always do the air forces' bidding. George Marshall and Hap Arnold had sent the airman to the Pacific with different marching orders, and once there Harmon found himself harnessed to a largely naval command that ran through Halsey to Nimitz in Hawaii and on to Admiral Ernest King in Washington. So while Harmon had responsibilities to both airmen and Soldiers subordinate to him, he also had sometimes competing obligations to superiors—to Halsey and the immediate fight in the Solomons, to Marshall and the Army in Washington, and to Arnold and the legions of airmen prosecuting the air war around the globe. These were all people of goodwill with a common commitment to the Nation, but each brought particular interests and beliefs to bear in his judgment about how, when, and with what resources to prosecute the war. Successful officers in Harmon's circumstance reconciled these influences, made them congruent when possible, and balanced them effectively otherwise. Whether he appreciated it or not, no other condition of his service indicated better that he had indeed become a senior commander.

If Harmon's dogged stewardship of the South Pacific bombers heartened Arnold, his pursuit of P-38 fighter planes to replace his commands' aging P-39s annoyed his air boss. Harmon believed the newer planes were necessary to combat the agile Japanese Zero, while Arnold—who had his own obligations to prioritize the fight in Europe—felt the older planes were “good enough for fighting the Japanese.” Undaunted, Harmon pressed his request within Navy channels, first through Halsey and ultimately via Nimitz, who, in Arnold's words, then “took up Harmon's battle cry and shouted to high heaven until every brass hat in Washington heard the echo.” Harmon got his P-38s, but at a cost. “Tell General Arnold it won't be long now before I am wearing bell bottom trousers,” he wrote to a friend on the Air Staff in an effort to both explain his position and maintain his standing among pilots. “Of course, it's a bit tough at times not to be operating one's bombers and to listen to a Navy chap talking about ‘my B-17s,’ but everything goes as long as we lick the Japs.” Arnold, who believed that



LTG Harmon (right) confers with (left to right) MG Richard Sutherland, ADM Chester Nimitz, and VADM Robert Ghormley during Solomons campaign

U.S. Naval Historical Center

“success in the Pacific Theater will not win the war” elsewhere, was not so sure.¹⁵

Arnold and Harmon, friends of 30 years’ standing, never quite found the sweet spot where their respective obligations might find equilibrium. As the South Pacific fight waned in the summer of 1944, the air chief reassigned Harmon as the commanding general of all Army Air Forces units in the entire Pacific. This affirmation of confidence was more apparent than it was real. The job made Harmon, among others things, Curtis LeMay’s proximal boss in the strategic air campaign against Japan, although the position conferred, once again, only administrative and logistical authority. Unhappy with the Navy’s stranglehold on the conduct of the Pacific war, and perhaps wary of Harmon’s close working ties with Halsey and Nimitz, Arnold had decided to retain operational control of LeMay’s Twentieth Air Force and its air war over Japan.

This unusual arrangement meant that LeMay’s planes would operate administratively and logistically within Harmon’s area of responsibility, yet report operationally to Arnold, sitting in Washington and well outside the theater. At the same time, the Navy would continue to exercise its own

perhaps wary of Harmon’s close ties with Halsey and Nimitz, Arnold decided to retain operational control of LeMay’s Twentieth Air Force and its air war over Japan

privilege in the area, as would the ground Army, and Harmon would report not only to Arnold but also to Nimitz. Arnold knew well the straits in which all this promised to place Harmon. “If you find it beyond your capacity to reconcile these conflicting loyalties,” he wrote Harmon in June 1944, “then I shall expect you to acquaint me with that fact; and if I find that my interests are not being adequately cared for, I shall not hesitate to resolve this difficulty by relieving you of further responsibility as my deputy.”¹⁶

As the senior air general in the Pacific, Harmon spent many months productively building the massive airstrips the new B-29s required for their assault on Japan. In December 1944, Nimitz greatly expanded Harmon’s authority, giving him operational command

of all land-based Navy and Marine planes as well as portions of the Seventh Air Force. Still, direct command of the Air Force’s strategic bombers eluded him, and Harmon struggled with LeMay, 18 years and one grade in rank his junior, over the boundaries of their respective powers. This was especially true as it related to control of the Twentieth’s escort fighters. Binding the fighters to the sole role of B-29 escort duty, Harmon feared, would render them “frozen” for the many other tasks in the Pacific when the bombers were not striking Japan. LeMay pushed back, insisting he “must have absolute operational control of the fighters” for the penultimate strategic air campaign of the war. It was a thorny situation, one that Arnold in Washington appeared disinclined to resolve, prompting the air forces’ official historians to claim Harmon had “one of the most difficult and complex assignments of the war.”¹⁷

To force a break in this and other jurisdictional problems, Harmon headed to Washington in February 1945. Girding for a fight, one air staff colonel encouraged LeMay not to take “bull from anyone, I don’t care who he is,” adding, “You probably know that General Harmon is coming here. We don’t know what all he is going to raise, but [we are] fully prepared.” Arnold’s precise thoughts are not known—and were likely more nuanced than a colonel’s convictions—but people on his staff surely believed that Harmon and other flyers in the Pacific “have been blinded by star-dust” and were “probably too old to cure.” As Harmon saw it, however, in this dispute he was merely advocating a command setup that would best enable both the flexibility and versatility of the Twentieth’s fighter planes. He, and not LeMay, occupied the doctrinal high ground.¹⁸

Legacy Lost in the Shuffle

It is hard to know who was right and who was wrong in all this. Just as George Marshall, Hap Arnold, and Bill Halsey had placed overlapping demands upon Harmon’s loyalties in the South Pacific, elements completely within the air arm now competed for his allegiance. If it was a difficult circumstance, Harmon was a seasoned officer whose rank required that he solve or at least manage these irritants. LeMay surely had the cleaner command task: to push with single-minded intensity the strategic airstrikes against Japan, a duty for which he possessed a special talent. For his part, Arnold’s position in Washington offered a horizon that extended beyond the

war to legitimate matters of postwar defense structure and air arm autonomy, making him perhaps less sensitive to matters still festering within the war at hand. As for Harmon, it was not the first and would not be the last time war placed a senior commander between a rock and a hard spot.¹⁹

How well Arnold, Harmon, and LeMay together might have navigated these complexities will never be known. On his way to Washington in February, Harmon’s plane was lost at sea. The largest air-sea rescue and recovery effort of the entire war failed to find as much as a rivet. Harmon’s body was never found. A year later, he was declared dead, along with the others aboard, including Brigadier General James Andersen, for whom Guam’s Andersen Air Force Base is named.

after the war, the Army and Navy had their own heroes to memorialize, and Harmon’s joint Service legacy poorly fit the needs of a newly independent Air Force

Harmon got considerably less recognition. Despite his contributions in World War II, he appears in only the most detailed of books and it is his little brother’s name that graces buildings at the Air Force Academy. Harmon’s untimely death surely accounts for some of this amnesia; the rush of wartime events left little time to commemorate individuals. But there is more to the continuing silence that surrounds Miff Harmon’s career. After the war, the Army and Navy had their own heroes to memorialize, and Harmon’s joint Service legacy poorly fit the needs of a newly independent Air Force. Through much of the Cold War, the Air Force focused on its important stewardship of an autonomous atomic mission, so when this most forward-looking of the Services remembered World War II at all, it heralded flyers such as Jimmy Doolittle, Carl Spaatz, and Curtis LeMay. These and others were great airmen, worthy of enduring emulation.

Harmon deserves his place in this pantheon. One of the few reminders of his career is a building named for him at Maxwell Air Force Base. It is there, at Maxwell’s Air University, home today for all Air Force officer education, where Harmon’s service can begin to teach a new generation of Airmen. Early

in his career Harmon came to believe that air war was an integral part of general war. Later, his World War II service underscored the imperative for airmen to be versed in all aspects of war if they hoped to command operations beyond the aerial fight. Yet today, Air University does not champion the integrative nature of airpower. A far better educational institution than its critics acknowledge, its classrooms nonetheless still aim to delineate the manner by which airpower changes war—which it certainly does—when they should strive to teach how airpower has become part of war—which it certainly is. To this day, the inspiration for its curriculum and aspiration for its students remain air war and air component command. In the past 10 years, four Air War College commandants have proclaimed as their primary intent to get—or return—the “air” into the college. Air generals have trumpeted the Air Command and Staff College as the “Cathedral of Air Power.” And each school at Air University has vied to claim the proud heritage of the Air Corps Tactical School as their own, even though the Tactical School was always more concerned with air combat than with general war, and today would be as analogous to the Weapons School at Nellis Air Force Base as any school at Air University.²⁰

Air University should—indeed, must—advocate air war and teach its associated competencies. But it ought to do so in a tone more befitting the heritage of Miff Harmon, who once told a friend that the 1930s focus on bombardment at the Tactical School “irked me to no end,” not because he did not share a faith in the idea but because it brokered an ignorance of airpower more broadly considered and of war more widely understood. Harmon did not see air war and general war as subtractive elements, where emphasis on one led to a diminution of the other. If this was a notion of limited appeal to a new Air Force consolidating its independence, it should be a proposition of wide allure to a more mature air arm. Already, an Air University student has produced a very fine Master’s thesis extolling Harmon. But the school must do more to educate Airmen in the comprehensive relationship between air war and war. Perhaps it might even aspire for its students something beyond air component command.²¹

The enduring scarcity of Air Force generals in joint or combined command has

convinced many Airmen that Beltway politics and Service parochialism have conspired against them. But this condition might also be attributable to how the Air Force nurtures and develops its own. It is time for Airmen to examine that possibility as well. **JFQ**

NOTES

¹ Of the six geographic combatant commands, only U.S. Northern Command (USNORTHCOM) is currently led by an Airman, General Victor Renuart. Over the past 60 years, only three other Air Force officers have led any of these organizations or their antecedents: General Lauris Norstad (U.S. European Command, 1956–1963), General Joseph Ralston (U.S. European Command, 2000–2003), and General Ralph Eberhart (USNORTHCOM, 2002–2004). The Air Force has fared better filling the functional commands. Of these, Airmen have on single occasions led U.S. Special Forces Command and U.S. Joint Forces Command, have always led U.S. Transportation Command or its antecedents, and nearly always U.S. Strategic Command (USSTRATCOM) or its predecessors. Recently, however, Airmen’s hold on USSTRATCOM, the descendant of General Curtis LeMay’s vaunted Strategic Air Command, has weakened. Navy admirals and Marine generals led the organization during 1994–1996 and 1998–2007.

² Millard F. Harmon, “Preliminary Rough Draft on Policy for Future Military Education of Air Corps Officers,” 245.04B, Air Force Historical Research Agency (HRA).

³ “Criticism of Air Corps Tactical School Text ‘Air Force,’” memorandum, 248.126–4, HRA, March 14, 1936.

⁴ Millard F. Harmon, “Notes of Trip to the French Front in the Region of Chalons sur-Marne, June 1917,” Millard Harmon Papers, 168.604–6, HRA, 7–8; Arnold to Harmon, February 1, 1940, Millard Harmon Papers, 168.604–11A, HRA.

⁵ Grandison Gardner, *Life Memories of Grandison Gardner*, 160, HRA.

⁶ Wesley F. Craven and James L. Cate, eds., *The Army Air Forces in World War II*, vol. IV, *The Pacific: Guadalcanal to Saipan August 1942 to July 1944* (Washington, DC: Office of Air Force History, 1950), 32, available at <www.ibiblio.org/hyperwar/AAF/IV/index.html>. Harmon first reported to Vice Admiral Robert Ghormley, but spent the bulk of his time in the South Pacific working for Halsey.

⁷ Cable, Marshall to Harmon, December 8, 1942, Millard Harmon Papers, 750.161–1, HRA.

⁸ John Miller, Jr., *U.S. Army in World War II: Guadalcanal, The First Offensive* (Washington, DC: Center for Military History, 1995), 174, 232.

⁹ Louis Morton, *U.S. Army in World War II: Strategy and Command, the First Two Years* (Washington, DC: Center for Military History, 1962),

509; Millard F. Harmon, “The Army in the South Pacific,” report, June 6, 1944, Millard Harmon Papers, 750.04A, HRA; Nimitz to Halsey, and Halsey to Nimitz, August 8 and August 19, 1943, William Halsey Papers, Library of Congress.

¹⁰ William F. Halsey and J. Bryan III, *Admiral Halsey’s Story* (Whitefish, MT: Kessinger Publishing, 2008), 161; Morton, *U.S. Army in World War II*, 509.

¹¹ Nimitz to John McCain, July 27, 1942, Chester Nimitz Papers, Operational Archives Branch, Naval Historical Center.

¹² Samuel B. Griffith II, *The Battle for Guadalcanal* (Champaign: University of Illinois Press, 2000), 142, Morton, *U.S. Army in World War II*, 509.

¹³ Louis Morton, “Pacific Command: A Study in Interservice Relations,” *The Harmon Memorial Lectures in Military History* Number 3, 139, available at <www.usafa.af.mil/df/dfh/harmonmemorial.cfm>.

¹⁴ Harmon’s personal papers at the HRA contain many examples.

¹⁵ Henry Arnold, *Global Mission* (New York: Harper & Brothers, 1949), 337, 343; Harmon to Laurence Kuter, September 11, 1942, L/C Box 88, 8.59, Murray Green Collection, U.S. Air Force Academy Special Collections.

¹⁶ Arnold to Harmon, June 6, 1944, 750.041–A, Millard Harmon Papers, HRA.

¹⁷ Craven and Cate, 525, 530.

¹⁸ S.A. Rosenblatt to LeMay, January 10, 1945, Curtis LeMay Papers, Library of Congress.

¹⁹ Today, the Air Force devotes considerable attention to the nuances of authority, relative prerogatives and mutual obligations of administrative oversight, operational command, and tactical control. Although they did not have the benefit of the subsequent 60 years’ experience with such matters, air arm leaders of World War II struggled with the same issues.

²⁰ The author bases this assertion on 12 years of teaching experience at Air University schools. The university policy of nonattribution precludes naming these officers. Air University is today a far more comprehensive institution than was the Air Corps Tactical School in the interwar years. Still, air war remains its cultural core.

²¹ Harmon to Bart Yount, November 25, 1939, cited in Robert Novotny, “Tarmacs to Trenches: Lieutenant General Millard F. Harmon” (Master’s thesis, School of Advanced Air and Space Studies, 2007), 38. For more on the remarkable Miff Harmon, see Novotny’s groundbreaking thesis.

Off the Shelf

Seven years into the war on terror, the U.S. Army and Marine Corps have more collective counterinsurgency experience than any fighting force in the world. Nonetheless, the Armed Forces must continue to improve their capability to fight and win in irregular conflicts as well as conventional ones. As the United States anticipates a new Presidential administration, questions abound within the joint and interagency communities regarding the future of the wars in Afghanistan and Iraq, troop deployments, and force structure. The two volumes below represent some of the best current thinking about how the United States should pursue its interests in a “hybrid” world, one not confined to the interests of nation-states.



Insurgency, Terrorism, and Crime: Shadows from the Past and Portents for the Future

By Max G. Manwaring

Norman: University of Oklahoma Press, 2008

248 pp. \$34.95

ISBN: 978-0-8061-3970-8

Max Manwaring, a professor of military strategy at the U.S. Army War College's renowned Strategic Studies Institute, continues his decades of researching and writing on insurgencies and counterinsurgency strategy with this volume. He sets out to provide civilian policymakers and military strategists with a set of case studies and lessons learned covering security threats presented by insurgents in some

20th-century conflicts that do not receive much attention in mainstream debate about insurgencies and asymmetric warfare. Manwaring points out that the attacks of September 11 were a watershed event that signaled wars would no longer be limited to well-structured conflicts between nation-states. He asserts in the introduction that “the sociology of war, of war making, and of those who are able to make it has changed.” Whether one agrees with this statement, one cannot deny Manwaring's admonition that “the conscious choices made by civil-military leadership in the international community and in individual nation-states about how to deal with the contemporary nontraditional security environment will define the processes of national, regional, and global security, stability and well-being far into the future” (p. 4).

Manwaring not only analyzes several national security threats, including contemporary terrorist and insurgent activities, but also covers Colombian insurgencies, gangs and criminal organizations in Central America and Mexico, the insurgencies in Portugal and Uruguay, and Italy's counterter-

ror campaign of 1968–1983. He writes, “The relevance of this book lies in its transmission of hard-learned lessons of the past and present to current and future leaders.”



Achieving Victory in Iraq: Countering an Insurgency

By Dominic J. Caraccilo and Andrea L. Thompson

Mechanicsburg, PA: Stackpole Books, 2008

240 pp. \$24.95

ISBN: 978-0-8117-0388-8

Colonel Dominic Caraccilo, a brigade combat team commander in the U.S. Army's famed 101st Airborne Division, and Lieutenant Colonel Andrea Thompson, military assistant to the Chief of Staff of the Army, combine the experience gained in their collective five tours of duty in Iraq to produce a timely and instructive book described in the foreword as a “handbook” for how to effectively engage with and prevail alongside the Iraqi people. Army and Marine Corps employment of recently revised U.S. doctrine on how to fight and win in counterinsurgency warfare is proving effective in both Iraq and Afghanistan. The United States, however, must maintain and hone its ability to fight and win conventional wars, but there is no argument that its forces must be able to simultaneously fight and win in irregular and asymmetric conflicts as well.

This book is not a “Monday morning quarterback” critique from people who have “been there and done that” and think that it would have all turned out better if only they had been in charge. Quite to the contrary, Caraccilo and Thompson provide an excellent history of Operation *Iraqi Freedom* and set the context for where we find ourselves today in Iraq. They state in the introduction that they believe there was and is a strategy for Operation *Iraqi Freedom* and that their purpose in writing is to convey how, based on what has worked, to bring that strategy to a successful conclusion.

Of particular use to military and civilian leaders is their survey of successful commanders in Iraq and descriptions of how each achieved their success in their respective situations. In the final chapter, the authors wrap up their analysis by recounting the most recent strategic guidance and operational imperatives, and even offer a set of “kit bag items” based on proven tactical experience. If busy warfighters and policy-makers only have time to read one book on counterinsurgency, reading this one would be time well spent.

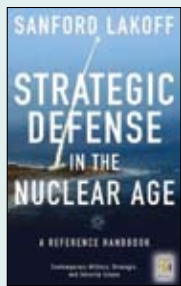
Other recent titles recommended:

■ Kagan, Frederick W. and Thomas Donnelly. *Ground Truth: The Future of U.S. Land Power*. Washington, DC: AEI Press, 2008. 161 pp. \$20.00 (Paperback)

■ Marston, Daniel and Carter Malkasian, eds. *Counterinsurgency in Modern Warfare*. New York: Random House, 2008. 204 pp. \$27.95 (Hardcover)

■ West, Bing. *The Strongest Tribe: War, Politics, and the Endgame in Iraq*. New York: Random House, 2008. 448 pp. \$28.88 (Hardcover)

—R.E. Henstrand



Strategic Defense in the Nuclear Age: A Reference Handbook
by Sanford Lakoff

Westport, CT: Praeger Security International, 2007

180 pp. \$54.95

ISBN-10: 0-275-99324-8

Reviewed by

JEFFREY L. CATON

Military history is replete with examples of competing policies emphasizing both offensive and defensive efforts as the best approach to ensure national security. Policies pertaining to nuclear-armed ballistic missiles share this history of controversy, which reveals consequences of their development and use—such as significant economic and political impacts during their development and devastating destruction in their operation—that warrant serious consideration. Over \$115 billion has been spent on U.S. missile defense over the last 25 years, and an additional \$9.3 billion may be spent during fiscal year 2009. Recent negotiations to put U.S. ballistic missile defense systems in Poland and the Czech Republic contribute to our strained relations with Russia. Dramatic hypervelocity interceptions of satellites by China in January 2007 and the United States in February 2008 demonstrate the advanced state of technology related to missile defense.

Strategic Defense in the Nuclear Age provides important historical context for anyone trying to analyze these current events. The title of the book certainly suggests an ambitious task, since the term *strategic defense* has many dimensions, and the *nuclear age* harkens back to many Cold War-era weapons systems developed and

operated over the course of more than 60 years. In his preface, Sanford Lakoff more accurately refines his book's overall scope as a review of U.S. efforts to develop and deploy defenses against attack by ballistic missiles, focusing on events since President Ronald Reagan introduced the Strategic Defense Initiative (SDI) in 1983. Given this stipulation, the book hits its mark as a general overview of active ballistic defenses appropriate for a reader unfamiliar with this topic.

The book's strengths are its presentation and analysis of the political aspects of ballistic missile defense pursuits. It provides a concise historical sketch of the evolution of the post-World War II security environment from the emergence of nuclear powers to the Cold War-era deterrence theory of mutual assured destruction. This background sets the stage for a discussion of the pursuit of active defenses, which centers on Reagan's tenacious quest to provide national options against nuclear missile attack other than to "push the button or do nothing." Lakoff contends that Reagan's public announcement of the SDI program, quickly nicknamed "Star Wars," caught most of his advisors by surprise. The author provides an analysis of the repercussions related to SDI goals as well as an interesting insight into the interactions among Congress, the Department of State, Department of Defense, and Joint Chiefs of Staff.

Strategic Defense in the Nuclear Age also explores SDI's effects on the ongoing Cold War, with particular emphasis on events in Western Europe. The author weaves together many key influences in his discussion, including changes in Soviet (and later Russian) leadership, implications to North Atlantic Treaty Organization defense planning, effects of ongoing strategic arms reduction negotiations, and elimination of intermediate nuclear forces in Europe.

Lakoff provides a technical overview chapter of SDI architecture and its major components.

Unfortunately, his writing is choppy and the selection of technical material is inconsistent, thus distracting from the preceding chapters. A section on "Problems and Controversies" introduces several thought-provoking issues that provide a good segue to the concluding chapter, a 31-page review of significant strides in U.S. active missile defense during the three administrations following Reagan as well as many technical and policy issues that continue to foster debate. This work describes the first Bush and Clinton administrations' evolution toward a limited missile defense goal versus the original SDI "impenetrable shield" to render nuclear weapons "impotent and obsolete." It highlights the second Bush administration's 2002 withdrawal from the Anti-Ballistic Missile Treaty that enabled the current use of layered defenses incorporating weapons systems of the U.S. Army, Navy, and Air Force. Lakoff's closing thoughts raise germane concerns regarding how these defenses contribute to a shift from the current militarization of space to its possible weaponization. He also raises the questions of how effective these defenses can be against terrorists using nuclear weapons, as well as how to balance their costs with those for homeland defense.

The book's only appendix is the article "Holes in the Missile Shield," by physicist Richard L. Garwin, updated slightly from its original publication in 2004. The article summarizes many of the key technical aspects of the book, and it may serve as a good starting point for those deciding whether to read the entire volume. Other sources for further research are included in a bibliography.

Overall, the book contains a number of factual errors and offers only limited citations and tabulated data. Also, its glossary is simply a list of the book's acronyms and does not explain key scientific terms, as promised on the back cover. Unfortunately, this distracts from the work's value as a reference handbook. Still, *Strategic Defense in the Nuclear Age* suffices as an adequate introduc-

tory primer of a highly enduring geopolitical issue. If the reader is inspired to delve more deeply into the technical aspects of missile defense history, the Historical Office of the U.S. Army Space and Missile Defense Command offers the outstanding text *Seize the High Ground: The U.S. Army in Space and Missile Defense* (2003) on its Web site at <www.smdc.army.mil/2008/HistoryBook.asp>. Although none of these works will turn readers into "rocket scientists," they will certainly enhance understanding of the technical and political intricacies required to defend against missiles or, possibly in the future, space weapons.

Colonel Jeffrey L. Caton, USAF, is a faculty member and Defense Transformation Chair at the U.S. Army War College. He has over 26 years of experience in space operations, joint operations, and acquisition management.



The Echo of Battle: The Army's Way of War

by Brian McAllister Linn

Cambridge: Harvard University Press, 2007

312 pp. \$27.95

ISBN-13: 978-0-674-02651-3

Reviewed by

BYRON E. GREENWALD

In *The Art of War*, Sun Tzu admonishes would-be political and military leaders to "know yourself and know your enemy and in one hundred battles you will be victorious." When it comes to conducting postwar analysis and adjusting warfighting concepts in preparation for the next war, Brian McAllister Linn shows how America's political and military elite have failed over the last two centuries to recognize the

impact of competing martial traditions on decisions regarding U.S. Army doctrine and force structure. Our failure to understand the pervasive influence of these philosophies on defense policy demonstrates that we do not know ourselves very well and that we are often our own worst enemy.

Linn examines the Army's historical efforts to learn the lessons of its last war and adjust its doctrine and materiel to accomplish a perceived set of new missions. In doing so, he provides an invaluable service to civilian and military leaders who invariably desire to "reform" the military once the last cannon sounds. While Sun Tzu educated leaders on fighting *with* swords and crossbows, Linn provides a penetrating discussion of the recurrent internal fighting *over* which weapons and warfighting concepts will dominate the Army's future way of war. He examines the (often erroneous) defense planning assumptions emerging from the major American wars of the 19th and 20th centuries and the impact those assumptions had on preparing for the next conflict.

Linn contends that one of the problems facing the Services today is that military and defense intellectuals have failed to identify an appropriate concept of war. While buzzwords abound—*shock and awe*, *fourth-generation warfare*, *net-centricity*, *asymmetric conflict*—the military does not have a concept of war that is robust enough to permit proper prewar preparation. He offers that defining a national way of war necessitates going beyond operational narratives, which tend to focus on the conduct of the last series of battles and engagements, and requires recognizing that "the way a military force conducts war very much depends on how it prepares for war" (p. 3). Most importantly, he observes that a Service's perception of its past and the legacy of its martial traditions greatly influence its peacetime preparation. Linn correctly notes that the military is not rigid, hierarchical, and monolithic, but rather is very much a plurality with several communities fighting

for primacy. As such, Linn defines three American martial philosophies, each espoused by a different group—*Guardians*, *Heroes*, and *Managers*—and maintains that as each group pushes its philosophy, the emerging American way of war becomes further confused.

The Guardian philosophy dominated 19th-century military thinking, with narrative threads still visible in today's defense debate. Guardians believe that war is both an art and a science and that only those who master the science should be allowed to practice the art. They see war as an engineering problem as evident in coastal defense, the Strategic Defense Initiative, homeland security, force protection (the Green Zone), and preemptive war. Guardian philosophy is also apparent in catch phrases such as *precision engagement*, *dominant maneuver*, and *win decisively*, which suggest success irrespective of enemy actions.

Heroes emphasize the "human element and define warfare by personal intangibles such as military genius, experience, courage, morale, and discipline." They value adaptability and innovation. Of the three groups, Heroes are the best at adjusting to different situations and can provide both an intellectual and practical framework for a range of military operations. Heroes understand that "securing the peace" is as important as "winning the war." They tend, however, to disregard the hard thinking and staffwork that make their vision achievable (for example, General George Patton's dismissal of logistics). Overreliance on Heroic muddy-boots fundamentalism and anti-intellectual reductionism ("I am a warrior, not a manager") can cause one to dismiss the complexity inherent in warfare (p. 7).

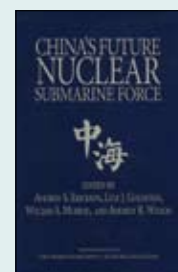
Managers often oppose both the Guardians and Heroes. Epitomized by Generals George Marshall and Dwight Eisenhower, the Managers can provide excellent broad strategic leadership but can also become fixated on the doctrine, organization, training, materiel, leader development,

personnel, and facilities aspects of building, training, and fielding a mass army and can miss or dismiss the complexity of smaller conflicts, postconflict operations, and unconventional missions. Like their corporate brethren in the business world, the Managers' preferred method of problem solving is "reorganization." Managerial philosophy focuses more on corporate management than on warfighting.

Multiple martial traditions or philosophies exist within all the Services. They are separate and distinct from various transient warfighter "communities," such as the Army's "Airborne Mafia," the "black shoe Navy," or the "fighter jocks" of the Air Force. They also influence policy discussions in a more fundamental fashion. For defense professionals, the value in reading *The Echo of Battle* comes in appreciating how these martial traditions may emerge during defense policy discussions. While one philosophy may dominate a debate, all are present in one form or another and work to confuse our thinking. Understanding the strengths and weaknesses of each philosophy may help bring the best out of each and allow senior leaders to shepherd the creation of a truly unifying and joint vision for the future.

Brian Linn has made a significant contribution to the history of the U.S. Army and to the body of knowledge on military innovation, transformation, and defense policy. A review of the existing literature on the subject reveals that while a small portion discusses the impact of Service culture on military innovation, transformation, or change, none of the literature exposes the intellectual underpinnings of a military Service to the degree seen in *The Echo of Battle*. In that respect and many others, Linn has broken new ground.

Dr. Bryon E. Greenwald is a retired U.S. Army Colonel and an Assistant Professor of Military Theory and Historical Foundation in the Joint Advanced Warfighting School at the Joint Forces Staff College.



China's Future Nuclear Submarine Force

Edited by Andrew S. Erickson et al.
Annapolis, MD: Naval Institute Press, 2007
400 pp. \$45.00
ISBN: 978-1-59114-326-0

Reviewed by
JOHN D. BECKER

Strategists now surveying the globe for future threats are looking beyond the ongoing U.S. involvement in Iraq and Afghanistan at many other international security threats, including terrorist networks, transnational criminal organizations, and failed states. Increasingly, several regional threats have emerged, including the People's Republic of China (PRC). China's economic development has garnered much attention, but another focal point has been its military growth. A major concern in that area has been China's nuclear forces, including its nuclear submarine fleet. Naval War College professors Andrew S. Erickson, Lyle J. Goldstein, William S. Murray, and Andrew R. Wilson explore that concern in depth in this book, which was drawn together from the results of a 2005 conference at which Active duty naval officers, academics, and policy experts met to discuss this new era in China's military development.

The premise of *China's Future Nuclear Submarine Force* is that the nuclear submarine fleet is now recognized as the centerpiece of China's naval strategy. The work is divided into five parts, including an exploration of the wider context for Chinese nuclear submarine development; an examination of the dimensions of the new submarine capabilities;

a discussion of current and future PRC nuclear submarine operations; an assessment of Cold War lessons for understanding the development of the PRC nuclear submarine force; and a discussion of the implications for U.S. national security in general and the U.S. Navy in particular. Worth noting is that this text is both more specific and broader in its scope of conception. It is more specific in that it looks at the neglected sector of China's undersea force—that small proportion of Chinese submarines using nuclear propulsion—and broader in that it concerns China's submarine force, navy, and grand strategy as a whole.

In the opening chapter, Rear Admiral Erik McVadon provides a detailed summary of current developments in the Chinese navy and includes a discussion of the maturity of the submarine fleet within the People's Liberation Army Navy, the role of the fleet in terms of the Taiwan "problem," and the potential threat the fleet poses to the United States.

In a chapter on the context of China's current maritime strategy, Bernard Cole argues persuasively that an understanding of that strategy must be grounded in an understanding of Chinese history, particularly since 1949. He also notes that while the Chinese navy once embraced Soviet ideas about strategy, it has since rejected them in order to develop its submarine fleet as a flexible, ready instrument of national security.

Additional chapters explore topics including analysis of available data concerning the capabilities of China's nuclear submarine; the implications of this analysis for China, the United States, and other major powers; and what, if any, lessons from the Cold War apply to the current situation. The collection also is unique in that five of the chapters draw substantially upon original Chinese sources. That reference is helpful in that it also shows the development of Chinese military analysis itself, something that has been downplayed in the past.

China's Future Nuclear Submarine Force is a followup to *China's Strategic Seapower*, by John Lewis and Xue Litai, published in 1993, which concluded that China had a seabased retaliatory capability. While arguably a premature conclusion at that time, *China's Future Nuclear Force*, looking at the second generation of Chinese nuclear submarines, presents a stronger claim for that conclusion. The Chinese navy, through its nuclear submarine fleet, is currently able to project power throughout China's littoral shores, from Taiwan, Honshu, and Sumatra. Soon, through the pursuit of its offshore defense maritime strategy, it will be able to project power throughout all of East Asia.

China's Future Nuclear Submarine Force provides both novices and experienced scholars an extensive primer on the context of the Chinese nuclear submarine fleet. It is quite readable, well organized, and extremely well documented in all chapters. It provides a solid foundation for understanding a new global security threat and its key elements.

Regardless of the political direction that China takes, the development of its military (and in particular its nuclear submarine fleet) bears watching. But it is important to remember that our own tendency to want to refight the same war again may apply here, too. That is particularly true given that many of the new Chinese nuclear submarines come from Russia, that the People's Liberation Army Navy originally used Soviet strategy and tactics, and that the U.S. Navy remains very much a force in search of a new naval rival. That bias can color the way we see this new threat and cause us to misunderstand it, as well as how to best deal with it.

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Gaming the 21st Century

National Strategic Gaming Center

Welcome to a new series on simulation and gaming in *Joint Force Quarterly*. With this column, the National Strategic Gaming Center (NSGC) at the National Defense University (NDU) intends to reach out to the community of simulation and gaming practitioners, stimulating debate about best practices in game design and analyses and sharing findings and insights from specific exercises with the wider national security policy community.

The discipline has long lacked an energized professional discourse about how games are best put together and what consumers can (and cannot) learn from them. This lack of substantive activity is costly to the wider policy and analytical community, whose members are left with few reference points for evaluating how seriously they should take the findings from games and how useful participation in them might be, and with little awareness of the interesting topics and exercises being run throughout the national security community. Despite some admirable attempts to stimulate debate and research, even Defense Department university-based wargaming groups have avoided publishing, lecturing, and generally competitively comparing ideas about why and how we do what we do.

A research initiative launched in 2008 seeks to fill this void and to invite colleagues in other gaming shops and the wider policy community to engage with us by participating in events, criticizing, contesting, elaborating, or extending research ideas. We want to challenge practitioners to reexamine how they write games and draw conclusions. We similarly wish to encourage and enable consumers of games to critically assess them. Our overarching focus is on gaming 21st-century challenges—both identifying issues and trends that could be well served by gaming and weighing whether and where exercise design needs to adapt in order to reflect these new issues.

What Policy Games Can Do . . .

NSGC conducts strategic-level exercises in which scenarios concerning broad national or homeland security crises are described to participants, including executive branch officials, senior combatant command staffs, NDU, and Members of Congress—all of whom are asked to determine the best decision for that situation. These types of games go by many names—for instance, political-military exercises, seminar games, tabletop exercises—but share some common attributes. They are *qualitatively specified*; that is, game rules

that shape the space in which participants make choices are described with words and graphics, not mathematical models or a computer program, and usually focus on the strategic, policy-oriented level of analysis. In NSGC games, there is not usually an automatic if-then result to each player's decision that shows him all possible consequences of that choice or a red team of opponents who respond to those choices; nor is there necessarily even a highly structured problem, although other gaming groups do effectively use these tools sometimes in qualitative games.

In 2007 and 2008, the NSGC congressional division ran two energy security exercises that provide a good illustration of our exercises. Participants were introduced to the scenario through a series of high-quality video "injects" and asked to make policy recommendations. Each move represented an advancement of time, and participants considered issues such as supply-line disruptions and strategic implications of dependence on foreign energy suppliers. The exercise promoted dialogue across branches of government about pressing issues and explored the complexity of this policy area.

... And What They Can't

Policy games are expensive, time consuming (certainly to design, sometimes to play), seldom repeated many times, and executed for sets of participants with varying levels of expertise and equities. They attempt to represent complex challenges succinctly even though designers do not necessarily know which factors or variables are most influential. With few iterations of an exercise, these games have what social scientists would call a "small N problem"—that is, any conclusions reached from analysis are abstracted from a small sample and vulnerable to any coincidental variations inherent in the particular group that played that particular exercise. Moreover, because of the many-variables problem, they all, *always*, exhibit some investigator bias: when designers write a scenario, they make some guesses as to what factors are the most important ones that create a strategic challenge. And they can be wrong.

This has some implications for consumers of games: when perusing after-action reports or any other compilation of findings from an exercise, wise readers should ask themselves, "How does the author know

this? Why are they concluding that this is a sound recommendation?" Although some significant exceptions exist, gamers do not as a whole do a good job of clarifying how and why they underscore certain findings as important when reporting on games, or relate those conclusions to structural elements of the game. Designers and analysts should be pressed to identify issues such as the number of times an exercise was conducted, the sampling of participants whose choices and observations constitute the "data," what suppositions were made about dominant causal factors and the trends or outcomes explained, and which proved more and less important as the exercise proceeded.

Importance

The kinds of information this method of research can generate are varied, but it is particularly effective to elicit and collate otherwise disparate expert knowledge on issues. By presenting a complex situation in which participants need to take a wide range of factors into decisionmaking, the exercises can achieve a related goal of pushing participants outside of their "lane" to weigh an individual office's or even a department's narrower goals against a wider array of issues and incentives.

NSGC specializes in qualitative policy games because, for this level of analysis, where problems are often ill defined, choices unclear, information incomplete, but decisions still urgent, these games yield educational and analytical benefits. For the lineup of topics we'll tackle this year—Darfur, Afghanistan-Pakistan, energy security, and Russia—these games are an excellent way to frame problems, accessible to audiences ranging from Members of Congress to senior military officers and civil servants.

More parsimonious, mathematical games also make tradeoffs, assuming away some important factors in exchange for the conciseness needed in order to formalize them. Qualitative exercises can retain a good bit more complexity and do not need to make as many of these tradeoffs, and, for some topics, this can be advantageous. In 2007, for example, NSGC conducted a West Africa exercise, *Divided Horizons*, which weighed the impact of various domestic variables on a range of strategic interests. The exercise, which focused on a few key variables, was an effective means of eliciting

creative policy suggestions and conceptualizing the problem. Indeed, concept validation—weighing what factors are and are not so important to understanding an issue—is something qualitatively specified exercises are extremely useful for.

Qualitative exercises are not perfect for testing and confirming the ideal solution to a problem. They may, however, be valuable in examining decisionmaking processes and are an excellent tool for identifying and exploring relationships, and weighing factors that shape a strategic situation. They are good at helping define problems for learning and analysis.

Subsequent columns will consider the other major strand of our research endeavor—identifying new, 21st-century security challenges and thinking about how to adapt games to learn about them. As we do so, the National Strategic Gaming Center will continue to use this space to pose questions about what games can tell the wider policy audience and what questions that audience should be asking to challenge gamers to produce the best, most salient, and most robust insights and findings. **JFQ**

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Joint Doctrine Update

Joint Chiefs of Staff J7 Joint Education and Doctrine Division

The Joint Staff/J7 (JS/J7), in concert with the joint doctrine development community (JDDC), remains on the leading edge of capturing today's lessons learned and best practices in joint doctrine to best equip the joint warfighter of today and tomorrow. As joint force experience and capabilities evolve, doctrine also must be revised accordingly. Recently, cyberspace and cyberspace operations have been highlighted within the joint arena.

On May 12, 2008, the Office of the Secretary of Defense approved a definition of *cyberspace* for use by the Department of Defense (DOD):

A global domain within the information environment consisting of the interdependent network of information technology infrastructures, including the Internet, telecommunications networks, computer systems, and embedded processors and controllers.

This definition was then incorporated into Joint Publication (JP) 1-02, *The DOD Dictionary of Military and Associated Terms*. A definition of *cyberspace operations* is being staffed, as tasked by the Deputy Secretary in the May 12 memorandum, and is expected to be approved in the near future. Once approved, this definition will also be incorporated into JP 1-02.

The National Military Strategy for Cyberspace Operations (NMS-CO), published in September 2007, was developed based on the National Strategy to Secure Cyberspace of 2003. The NMS-CO has three main objectives:

- establish a common understanding of cyberspace
- set forth a military strategic framework that orients and focuses DOD military, intelligence, and business operations in and through cyberspace
- serve as a definitive reference to plan, execute, and resource cyberspace operations for DOD agencies.

In accordance with the NMS-CO, the Joint Staff developed a 42-task implementation plan that encompasses three phases with numerous tasks per phase. One task, Doctrine 1, has direct

implications for the future of joint doctrine. Appropriately, this task was assigned to the JS/J7 for coordination and U.S. Strategic Command (USSTRATCOM) for action. The objective is to assess joint doctrine in support of operations in cyberspace, recommend changes, and develop new doctrine as appropriate through the Joint Staff/J7 in accordance with Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 5120.02A, "Joint Doctrine Development System."

Additionally, during the last Joint Doctrine Planning Conference (JDPC), the JS/J7 proposed initiation of a comprehensive doctrine assessment regarding cyberspace; beginning with a review of JP 1, *Joint Warfare of the Armed Forces of the United States*. Accordingly, USSTRATCOM has further divided this task into three phases: JP 1 assessment, JP 1-0 through JP 6-0 assessments, and development of an entirely new cyberspace joint publication. USSTRATCOM completed the formal assessment of JP 1 in August, which is now under review. Once approved, JP 1 will be updated in accordance with CJCSI 5120.02A. In addition to the above cyberspace initiatives, the J7 and JDDC workload continues to be demanding as JP 3-24, JP 3-26, and 4-series development progresses.

JP 3-24, *Counterinsurgency Operations*, is currently in the first-draft phase; it has been posted to the Joint Doctrine, Education, and Training Electronic Information System and sent out to the community for action officer review and comment. Comments were due back to the lead agent on October 27, 2008, for adjudication. It is scheduled for approval in June 2009.

JP 3-26, *Counterterrorism*, is currently undergoing first-draft revision with the lead agent following the Joint Working Group, which was held on September 1, 2008, at U.S. Southern Command headquarters in Tampa. The matrix was due back to the Joint Staff/J7 on September 19. It is scheduled for approval in April 2009.

JP 4-0, *Doctrine for Logistic Support of Joint Operations*, introduces new joint logistics doctrine, to include the joint logistics environment, joint logistics imperatives, U.S. Transportation Command as the distribution process owner, and U.S. Joint Forces Command as the joint deployment process owner. JP 4-10,

Operational Contract Support, was signed in December 2008, and work has begun on a second draft of JP 4-09, *Global Distribution*.

For access to joint publications, go to Joint Doctrine, Education, and Training Electronic Information System Web portal at <<https://jdeis.js.mil>> (dot.mil users only). For those without access to dot.mil accounts, go to Joint Electronic Library Web portal at <www.dtic.mil/doctrine>.

JPs Revised or Under Review

- JP 1-05, *Religious Support in Joint Operations*
- JP 1-06, *Financial Management Support in Joint Operations*
- JP 2-01, *Joint and National Intelligence Support to Military Operations*
- JP 2-01.3, *Joint Tactics, Techniques, and Procedures for Joint Intelligence Preparation of the Battlespace*
- JP 3-02, *Joint Doctrine for Amphibious Operations*
- JP 3-04, *Joint Tactics, Techniques, and Procedures for Shipboard Helicopter Operations*
- JP 3-06, *Doctrine for Joint Urban Operations*
- JP 3-07.1, *Foreign Internal Defense*
- JP 3-09.1, *Joint Tactics, Techniques, and Procedures for Laser Designation Operations*
- JP 3-09.3, *Joint Tactics, Techniques, and Procedures for Close Air Support*
- JP 3-11, *Joint Doctrine for Operations in Nuclear, Biological, and Chemical (NBC) Environments*
- JP 3-14, *Joint Doctrine for Space Operations*
- JP 3-17, *Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations*
- JP 3-18, *Doctrine for Joint Forcible Entry Operations*
- JP 3-24, *Counterinsurgency Operations*
- JP 3-26, *Counterterrorism*
- JP 3-29, *Foreign Humanitarian Assistance*
- JP 3-30, *Command and Control for Joint Air Operations*
- JP 3-31, *Command and Control for Joint Land Operations*
- JP 3-40, *Joint Doctrine for Combating Weapons of Mass Destruction*
- JP 3-52, *Joint Doctrine for Airspace Control in the Combat Zone*
- JP 3-53, *Joint Doctrine for Joint Psychological Operations*
- JP 3-57, *Joint Doctrine for Civil-Military Operations*
- JP 3-59, *Joint Doctrine, Tactics, Techniques, and Procedures for Meteorological and Oceanographic Operations*
- JP 3-61, *Public Affairs*
- JP 3-63, *Detainee Operations*
- JP 4-0, *Doctrine for Logistic Support of Joint Operations*
- JP 4-01.5, *Joint Tactics, Techniques, and Procedures for Transportation Terminal Operations*
- JP 4-05, *Joint Mobilization Planning*
- JP 4-10, *Operational Contract Support*



Strategic Forum 233
Defense Transformation à la française and U.S. Interests

Under President Nicolas Sarkozy, France has embarked on major changes in its national security strategy, structure, capabilities, and relationships with Allies. Leo Michel analyzes this transformation as presented in the French White Book of Defense and National Security, the official blueprint approved in June 2008. Michel notes that much more is at stake in this ambitious plan than the shape of France's defense establishment. French policies and capabilities have implications for its European Allies, the United States, and regions beyond Europe such as parts of Africa.



Strategic Forum 234
Irregular Warfare: New Challenges for Civil-Military Relations

Patrick Cronin argues that irregular warfare—highly political and ambiguous and intensely local by nature—is likely to dominate the global security environment in the coming decades. Success in this type of conflict will require a framework that balances the relationships between civilian and military leaders and effectively uses their different strengths. Irregular warfare challenges traditional understandings of how civilian and military leaders should work together. Specifically, Cronin examines issues such as measuring progress, choosing the best leaders, and forging integrated strategies.



Strategic Forum 235
The Absence of Europe: Implications for International Security?

Facing a worsening economy and a war in Iraq that will be difficult to end, the next U.S. administration may well seek a more multi-lateral foreign policy and closer cooperation with Europe. But, as Steven Kramer argues, Europe may be unwilling or unable to play a larger role in global security. European unification and NATO expansion have stalled, economic and social issues continue, and key leaders disagree on how to proceed. In short, Europe's inability to work with the United States may be a logical consequence of its political structure and worldview, forcing America to turn to Asia for support.



Strategic Forum 236
NATO's Uncertain Future: Is Demography Destiny?

The North Atlantic Treaty Organization (NATO) is increasingly stressed by population trends in its member countries. For example, the gap between U.S. and European military-age segments is widening, with the U.S. cohort increasing while Europe's shrinks; a young, growing U.S. population will contribute to its enhanced global economic profile in 2050, while Europe's aging and shrinking productive population will help diminish its presence. Jeffrey Simon argues that these trends will hamper the Alliance's ability to deploy operational forces, and thus should be consciously weighed in NATO's future strategic plans.

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Strategic Forum 237
Challenges to Persian Gulf Security: How Should the United States Respond?

Persian Gulf security will increasingly pose difficult choices for the next administration. Judith Yaphe perceives the United States facing three challenges. The toughest by far is whether to engage Iran and, if so, how. The second delicate issue is what posture to take on reform within the Gulf states. A heavy-handed approach can trigger cynicism about U.S. motives and charges of double standards. The third is how to build cooperation between the Gulf states and Iraq. Lingering suspicions will be hard to overcome. The Gulf states may well seek expanded security guarantees from the United States even as they remain wary of formal ties.

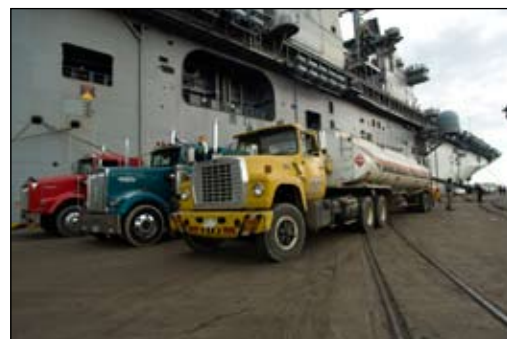


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